MONDAY POSTERS
Atomic Elemental Analysis

MPN 392 **A Microcavity Pulsed Glow Discharge as an Ion Source for Mass Spectrometry;** Kevin P. Turney*; Jian Liu; W.W. Harrison; *University of Florida, Gainesville, FL*

MPN 393 **Validation of ESI-TOF Semi-Automated Accurate Mass Measurements for Improved Throughput;** Navin K. Varshney*; Patrick M. Jeanville; Michele A. Kelly; *Pfizer Inc., Groton, CT*

MPN 394 **Elemental Analysis using Fourier Transform Ion Cyclotron Resonance Mass Spectrometry;** Keith D. Zientek; Stanley M. Stevens; John R. Eyler*; *Department of Chemistry, University of Florida, Gainesville, Florida, USA*

MONDAY POSTERS
Isotope Ratio MS

MPO 395 **Pyrolysis of Methionine Analog for Carbon Position Specific Isotopic Analysis;** Gavin L. Sacks; J. Thomas Brenna*; *Cornell University, Ithaca, NY*

MPO 396 **Acid Hydrolysis of Silk Fibroins and Determination of the Enrichment of Isotopically Labeled Amino Acids Using Precolumn Derivatization and HPLC-ESI-MS;** Sonja Hess[1]; Jacco van Beek[2]; Lewis K. Pannell*[1]; *[1]NIDDK, Bethesda, MD; [2]ETHZ, Zuerich, Switzerland*

MPO 397 **Thermal Ionization Mass Spectrometry in an Orthogonal Acceleration Time of Flight Instrument;** Adam W McMahon*; Dimitris Papanastasiou; Christopher A Rego; *Manchester Metropolitan University, Manchester, UK*

MONDAY POSTERS
Hydrocarbons

MPP 398 **Fast on-line measurements of hydrocarbons and oxygenated organics in ambient air with a proton-transfer-reaction mass spectrometer;** Josef Dommen*; Martin Steinbacher; Andre Prevot; *Paul Scherrer Institut, Villigen, Switzerland*

MPP 399 **Quantification of Diesel Oil Taint in Seafood;** F. Aladar Bencsath*[1]; Luz Quinones[1]; Heriberto Valentin-Perez[1]; James D. Barnett[2]; *[1]U. S. Food and Drug Administration, Dauphin Island, Alabama; [2]U. S. Food and Drug Administration, Bothell, Washington*

MPP 400 **Field Desorption/Ionization FT-ICR Mass Spectrometry for Hydrocarbon Analysis;** Christopher L. Hendrickson*; Tanner M. Schaub; Ryan P. Rodgers; John P. Quinn; Alan G. Marshall; *National High Magnetic Field Laboratory, Florida State University, Tallahassee, Florida*

MPP 401 **SFC/GC/MS as a Technique for Investigating the Aromatic Components of Light Gas Oils and Other Petroleum Samples;** Louis Ramaley*; Geneviéve Mercier; Robert D. Guy; Michael Potvin; *Dalhousie University, Halifax, NS, Canada*

MPP 402 **A Glimpse into History: Geochemical Differentiation of Crude Oils through the Selective Ionization and Identification of NSO Compounds by Electrospray Fourier Transform Ion Cyclotron Resonance Mass Spectrometry;** Christine A. Hughey*[1]; Ryan P. Rodgers[2]; Kuangnan Qian[3]; Winston K. Robbins[3]; Clifford Cl Walters[3]; Alan G. Marshall[2]; *[1]NHMFL, Dept. of Chemistry & Biochemistry, Florida State University, Tallahassee, Florida; [2]ExxonMobil Research and Engineering, Annandale, New Jersey; [3]National High Magnetic Field Laboratory, Florida State University, Tallahassee, Florida*

TUESDAY POSTERS
Proteomics: New and Improved

TPA 001 **A MALDI-FTICR Based Method for Rapid, High Throughput Proteomics;** Julia Johnson[1]; Stacey Boltz[1]; Michael Easterling[2]; Paul Speir[2]; Iris Pourat[1]; William B Whitman[1]; I Jonathan Amster*[1]; *[1]University of Georgia, Athens, GA; [2]Bruker Daltonics, Billerica, MA*

TPA 002 **Specific Electrochemical Cleavage of Peptides with on-line Mass Spectrometric Detection;** Hjalmar Permentier; Ulrik Jurva; Begona Barroso; Rainer Bischoff; Andries Bruins*; *University of Groningen, Groningen, The Netherlands*

TPA 003 **Mass spectrometric peptide mapping of proteins detected by western blotting;** Klaus Klarskov*; Jean-Francois Lemay; *University of Sherbrooke, Sherbrooke, Canada*

TPA 004 **Targeted proteomics analyses using two dimensional liquid chromatography-nanoelectrospray with dynamic exclusion/inclusion of precursor ions;** Joseph Pok Man Hui*; Eric Bonneil; Joel Lanoix; Daniela Vasilescu; Alain Carrier; Pierre Thibault; *Caprion Pharmaceuticals Inc., Montreal, Canada*

TPA 005 **Construction of the high throughput expression proteomics system using multi-dimensional LC-MS/MS;** Hisae Anyoji*[1]; Yuriko Sakaguchi[2]; Yasuhiko Bando[2]; Takao Kawakami[1]; Toshihide Nishimura[1]; *[1]GlaxoSmithKline K.K., Tsukuba, Japan; [2]AMR Inc., Tokyo, Japan*

TPA 006 **Monitoring cTnC Conformational Changes Induced by Calcium Binding Using N15-Labeled Samples and HPLC-MALDI Detection;** Chris JB McDonald*; Boyan Zhang; Liang Li; *University of Alberta, Edmonton, Canada*

TPA 007 **Enrichment of Integral Membrane Proteins for Proteomic Analysis Using LC-MS/MS;** Josip Blonder; Michael B Goshe; Ronald J Moore; Mary S Lipton; Richard D Smith*; *Pacific Northwest National Laboratory, Richland, Washington*

TPA 008 **Multiplexed Online nanoscale LC-MS/MS Proteomic Analysis of Human Embryonic Kidney Cells;** Lu Yu[1]; Alicia Ma[1]; Jyoti Choudhary*[1]; Walter Blackstock[1]; Chris Hughes[2]; Alan Millar[2]; Hans Vissers[2]; John Hoyes[2]; Jim Langridge[2]; Gitte Neubauer[1]; *[1]Cellzome AG, Elstree, UK; [2]Micromass UK Ltd, Manchester, UK*

TPA 009 **Bypasssing 2D Gels By 2D Capillary LC-MS;** Joan Krenisky-Purkerson*; Remco van Soest; Goran Mitulovic; Remco Swart; Marek Smoluch; Jean-Pierre Chervet; *LC Packings-A Dionex Company, San Francisco, CA, USA*

TPA 010 **A New Approach for Biomolecular Interaction Analysis-Mass Spectrometry of Protein Mixtures;** John J. Gilligan*[1]; Peter Schuck[2]; Alfred L. Yergey[1]; *[1]National Institute of Child Health and Human Development, NIH, Bethesda, MD; [2]Division of Bioengineering and Physical Science, NIH, Bethesda, MD*

TPA 011 **Protein identification by automated MALDI TOF MS: practical assessment;** Jan Havliš; Anna Shevchenko; Andrej Shevchenko*; *Max Planck Institute for Molecular Cell Biology and Genetics, Dresden, Germany*

TPA 012 **development of sensitive stainings of 2-D gel electrophoresis compatible with MS analysis;** sophie richert*[1]; jean-marc strub[1]; sylvie luche[2]; alain van dorsselaer[1]; thierry rabilloud[2]; emmanuelle leize-

wagner[1]; [1]*LSMBO-Louis Pasteur University, Strasbourg, France;* [2]*DBMS/BECP-CEA, Grenoble, France*

TPA 013 **Profiling protein expression changes in the cellular differentiation of monocytes using 2D-LC and mass spectrometry;** Eric Bonneil*; Joseph Hui; Nadine Menhem; Sylvain Brunet; Joel Lanoix; Pierre Thibault; *Caprion Pharmaceuticals Inc, Montreal, Quebec*

TPA 014 **Integration of Differential mRNA and Protein Expression Profiling;** Alex Apffel; Viorica Lopez-Avila*; *Agilent Technologies, Palo Alto, CA*

TPA 015 **Ligand Fishing with Biomolecular Interaction Analysis (BIA) and MALDI-TOF MS;** Christopher A. Hack*; Michael Murphy; Sharon Doyle; Shirin Fuller; Joann Wang; Paul Richardson; *Joint Genome Institute, Walnut Creek, CA*

TPA 016 **Quantitative chemical proteomics;** Yoshiya Oda*[1]; Takashi Owa[1]; Toshitaka Sato[1]; Takeshi Nagasu[1]; Hidenori Yamanaka[2]; [1]*Eisai Co., Ltd., Tsukuba, Japan;* [2]*Amersham Biosciences K.K., Tokyo, Japan*

TPA 017 **An investigation into the dynamic range of protein identification; MALDI vs electrospray on a hybrid quadrupole orthogonal acceleration time-of-flight (Q-Tof) mass spectrometer;** James I Langridge*[1]; Alan Millar[1]; Chris Hughes[1]; Dominic Gostick[1]; John Hoyes[1]; Richard Tyldesley[1]; Lu Yu[2]; Alicia Ma[2]; Jyoti Choudhary[2]; Jeff Brown[1]; [1]*Micromass UK Ltd., Manchester, UK;* [2]*Cellzome AG, Elstree, UK*

TPA 018 **De Novo Protein Sequencing and Function Determination by Mass Spectrometry;** Joseph A. Loo*[1]; Ping Du[2]; Greg W. Kilby[2]; W. Tom Mueller[2]; Tracy I. Stevenson[2]; Margaret M. Whitton[2]; Rachel R. Ogorzalek Loo[1]; [1]*University of California, Los Angeles, CA;* [2]*Pfizer Global Research and Development, Ann Arbor, MI*

TPA 019 **Improved Nanospray Emiiter Coatings for Nanobore LC-MS;** James P. Murphy III*; Gary A. Valaskovic; *New Objective, Inc, Woburn, MA*

TPA 020 **Characterization of the *Mycoplasma pneumoniae* Proteome with 100% Sequence Coverage by Automating High Resolution MS/MS;** Leah M. Miller*; Yi Du; Jeffrey R. Johnson; Fanyu Meng; Gregory K. Taylor; Neil L. Kelleher; *University of Illinois at Urbana-Champaign, Urbana, Illinois*

TPA 021 **Solution and Gel Isoelectric Focusing for Mass Spectrometric Analyses of the Yeast Proteome;** Joy M Ginter*[1]; Tanya Q Shang[1]; Murray V Johnston[1]; Barbara S Larsen[2]; Charles N McEwen[2]; [1]*University of Delaware, Newark, DE;* [2]*E.I. duPont de Nemours and Company, Wilmington, DE*

TPA 022 **Evaluation of Automated In-gel Digestion Coupled with MALDI/MS and MALDI/MS/MS for Protein Identification;** Wanda M. Bodnar*[1]; David J. Bell[2]; R. Kevin Blackburn[1]; Roderick G. Davis[1]; Helen R. Flynn[2]; Ruaraidh Forrest[2]; Joanna M. Krise[1]; M. Arthur Moseley[1]; Mary B. Moyer[1]; Daniela M. Schlatzer[1]; Mark J. Skehel[2]; [1]*GlaxoSmithKline, Stevenage, UK;* [2]*GlaxoSmithKline, RTP, NC*

TPA 023 **Rapid method for MALDI-TOF MS identification of glycosylated proteins;** Gvozdyak Oksana*; Stoerker Jay; *Bruker Daltonics Inc., Billerica, USA*

TPA 024 **MALDI/MS/MS and ESI/MS/MS Coupled with Capillary LC for Targeted Data Acquisition Schemes in Proteomic Studies;** M. Arthur Moseley*[1]; David J. Bell[2]; R. Kevin Blackburn[1]; Wanda M. Bodnar[1]; Steven A. Cohen[4]; Dominick Gostick[3]; Joanna M. Krise[1]; Jim Langridge[3]; Mary B. Moyer[1]; Daniela M. Schlatzer[1]; J. Mark Skehel[2]; Daniel B. Wall[4]; [1]*GlaxoSmithKline, RTP, NC;* [2]*GlaxoSmithKline, Stevenage, UK;* [3]*Micromass, Manchester, UK;* [4]*Waters Corporation, Milford, MA*

TPA 025 **Evaluation of a new algorithm for high accuracy protein identification on ion trap mass spectrometers;** Marcus Macht*[1]; Jens Decker[1]; Michael Kuhn[1]; Markus Lubeck[2]; Christian Neusuess[1]; Ilmari Krebs[2]; [1]*Bruker Saxonia Analytik GmbH, Leipzig, Germany;* [2]*Bruker Daltonik GmbH, Bremen, Germany*

TPA 026 **A Proteomic Study of *E. coli* using the DNA-binding Capability of Proteins;** Martha D. Stapels*; Douglas F. Barofsky; *Oregon State University, Corvallis, OR*

TPA 027 **Blue Native Polyacrylamide Gel Electrophoresis and Mass Spectrometric Identification of Nuclear Protein Complexes;** Petr Novak*[1]; Petr Man[3]; Zora Novakova[2]; Zdenek Hodny[2]; Karel Bezouska[3]; Pavel Hozak[2]; [1]*Institute of Microbilogy, CAS, Prague, Czech Republic;* [2]*Institute of Experimental Medicine, CAS, Prague, Czech Republic;* [3]*Department of Biochemistry, Charles University, Prague, Czech Republic*

TPA 028 **Applications using an improved highly reliable monoisotopic peak labelling algorithm for proteomic research;** Jens Decker*[1]; Michael Kuhn[1]; Marcus Macht[1]; Anja Resemann[2]; Detlev Suckau[2]; [1]*Bruker Saxonia Analytik GmbH, Leipzig, Germany;* [2]*Bruker Daltonik GmbH, Bremen, Germany*

TPA 029 **Fast capillary LC-ESI-QTOF-MS peptide sequencing: a generic LC approach for screening the TBY-2 proteome;** Erwin J Witters*[1]; Kris Laukens[1]; Peter Deckers[1]; Walter Van Dongen[2]; Eddy L Esmans[2]; Henri A Van Onckelen[1]; [1]*University of Antwerp - UIA, Antwerp, Belgium;* [2]*University of Antwerp - RUCA, Antwerp, Belgium*

TPA 030 **Total Sequence Analysis of Cancer Cell Line Proteins Using Capillary Electrophoresis interfaced to Electrospray-TOF and Tandem Mass Spectrometry;** Chul S Yoo*; David M Lubman; *University of Michigan, Ann Arbor, MI*

TPA 031 **Large-scale proteome analysis using two dimensional electrophoresis, free flow electrophoresis prefractionation and direct mass spectrometry identification;** Rong Zeng*; Xiao-xia Shao; Jing-fang Song; Qi-chang Xia; *Shanghai Institutes for Biological Sciences, CAS, Shanghai, China*

TPA 032 **Quantitative Proteomics with *Escherichia coli*;** Bernd Moritz*[1]; Helmut E. Meyer[1]; Martin Siemann-Herzberg[2]; Matthias Reuss[2]; [1]*Medical Proteome-Center, Bochum, Germany;* [2]*Institute of Biochemical Engineering, Stuttgart, Germany*

TPA 033 **Optimization of peptide fingerprinting and identification of preferred cleavage sites by limited on-chip proteolysis;** Andreas Wiesner*[1]; Felicitas Lerner[2]; Mathias Ziegler[2]; [1]*Ciphergen Biosystems Ltd., Guildford, United Kingdom;* [2]*Institute of Biochemistry, Free University, Berlin, Germany*

TPA 034 **Epitope Mapping Using Surface Bound Antibodies and LDI-QqTOF Mass Spectrometry;** Ning Tang*[1]; Pete Tornatore[1]; Tina Morris[2]; Theresa Kwong[2]; Scot Weinberger[1]; [1]*Ciphergen Biosystems, Fremont, CA;* [2]*Human Genome Sciences, Rockville, MD*

TPA 035 **Proteomic Analysis of the Expression Profile of Regenerating Neurons of Adult Retina Comparing ALS- and SDS-2D-PAGE;** Martin Zeller*[1]; Karin Rose[2]; Solon Thanos[2]; Simone Koenig[1]; [1]*Integrated Functional Genomics, University of Muenster, Muenster, Germany;* [2]*Department of Experimental*

Ophthalmology, University of Muenster, Muenster, Germany

TPA 036 **High-Throughput Reversed-Phase Microcapillary Liquid Chromatographic System as a Nanoscale Electrospray Ionization Source for Tandem Mass Spectrometry;** Hookeun Lee*; Eugene C. Yi; David R. Goodlett; Ruedi Aebersold; *The Institute for Systems Biology, Seattle, WA*

TPA 037 **Two-Dimensional Ion Exchange – Reversed Phase Chromatography of Protein Digests: Reducing the Complexity of Difficult Separations;** Eric D Stover*[1]; Ron Sherant[1]; Paul Ross[1]; Josh Kline[1]; Richard A Henry[1]; Mark Woodruff[2]; Luisa Pereira[2]; *[1]Thermo Hypersil-Keystone, Bellefonte, Pennsylvania; [2]Thermo Hypersil-Keystone, Runcorn, United Kingdom*

TPA 038 **An Automated Method to Self-Calibrate and Reject Noise From MALDI Peptide Mass Fingerprint Spectra;** Jeffery M Brown*; Neil Swainston; Keith Richardson; Richard Denny; Dominic Gostick; Steven Leicester; Phillip Young; *Micromass UK Ltd, Manchester, UK*

TPA 039 **Improved Tryptic Digestion of Proteins via a Novel Acid-labile Surfactant;** Ying Qing Yu*; Martin Gilar; Peter J. Lee; Weibin Chen; John C. Gebler; *Waters Corporation, Milford, MA*

TPA 040 **Proteomic Mapping of the Human Embryonic Kidney Cells by Online Multidimensional nanoscale LC-MS/MS;** Lu Yu*; Alicia Ma; Jyoti Choudhary; Walter Blackstock; Gitte Neubauer; *Cellzome AG, Elstree, U.K.*

TUESDAY POSTERS
Proteomics: Cancer Markers

TPB 041 **Proteomic studies on metastatic mechanism of hepatocellular carcinoma;** Shi-jian Ding[1]; Rong Zeng[1]; Zhao-you Tang[2]; Hong-yang Wang[3]; Qi-chang Xia*[1]; *[1]Shanghai Institutes for Biological Sciences, CAS, Shanghai, China; [2]Shanghai Zhongshan Hospital, Shanghai, China; [3]Eastern Hepatobilliary Surgery Institute, Shanghai, China*

TPB 042 **Colorectal cancer: Identification of differentially expressed proteins using a proteomics approach;** Laura C Lawrie*; John E Fothergill; Graeme I Murray; *University of Aberdeen, Aberdeen, Scotland*

TPB 043 **Nasopharyngeal Carcinoma Biomarker Discovery by Serum Profiling ;** William C Cho[1]; Timothy T Yip[1]; Christine Yip[2]; Victor Yip[2]; Vanitha Thulasiraman*[2]; Roger K Ngan[1]; Tai T Yip[2]; Wai W Cheng[1]; Wai H Lau[1]; Cadmon K Lim[1]; YF Poon[1]; John H Ho[3]; *[1]Queen Elizabeth Hospital, Dept. of Clinical Oncology, Hong Kong; [2]Ciphergen Biosystems, Fremont, California, USA; [3]Baptist Hospital, Dept. of Radiotherapy, Hong Kong*

TPB 044 **Proteomic Strategies Applied to Breast Cancer Drug Resistance;** Kristy J. Reynolds*; Xudong Yao; Catherine Fenselau; *University of Maryland, College Park, MD*

TPB 045 **Differential-Display Proteomic Patterns of Colon Cancer in Serum by SELDI-TOF Mass Spectrometry;** John Roboz*; Longhua Ma; Max Sung; James, F. Holland; *Mount Sinai School of Medicine, New York, N.Y.*

TPB 046 **VEGF pasporting in lung tumor tissue;** Bart Landuyt[1]; Jaap Jansen[2]; Hans Wildiers[1]; Laurence Goethals[1]; Gert De Boeck[1]; Martin Highley[1]; Allan T van Oosterom[1]; Ubbo Tjaden[3]; Gunther Guetens[1]; Ernst A de Bruijn*[1]; *[1]KU Leuven, Leuven, Belgium; [2]Cyphergen Biosystems, Fremont, California; [3]University of Leyden, Leyden, The Netherlands*

TPB 047 **Target Breast Cancer Marker Proteins with High Resolution Multidimentional Liquid Phase Separation and Mass Spectrometry;** Kan Zhu*[1]; Rick L. Hamler[1]; David M. Lubman[1]; Fred R. Miller[2]; *[1]University of Michigan, Ann Arbor, MI; [2]Karmanos Cancer Institute, Detroit, MI*

TPB 048 **2D-DIGE and DALPC analysis of receptor tyrosine kinase signaling in human cancer cells;** David B. Friedman*; Salisha Sobrattee; Christoph Ritter; Carlos L. Arteaga; Jennifer L. Jennings; Andrew J. Link; Richard M. Caprioli; *Vanderbilt University School of Medicine, Nashville, TN*

TPB 049 **Screening and Identification of Hypoxic Proteins by Two-Dimensional Polyacrylamide Gel Electrophoresis and Mass Spectrometry;** Gongyi Shi*; Yijun Chen; Albert Koong; *Stanford University, Palo Alto, CA*

TPB 050 **A Novel Lipid Hydroperoxide-Derived Modification to Arginine-Containing Peptides;** Tomoyuki Oe*; Seon Hwa Lee; Amy M. Quinn; Ian A. Blair; *Center for Cancer Pharmacology, University of Pennsylvania, Philadelphia, PA 19104-6160*

TPB 051 **Proteomics of human breast Ductal Carcinoma in Situ (DCIS);** Hongjun Shu[1]; She Chen[1]; Julia D. Wulfkuhle[2]; Dennis C. Sgroi[4]; Henry Kruztsch[2]; Kelly McLean[2]; Melodie Knowlton[2]; Aysegul Sahin[5]; Yue Chen[1]; Emanuel Petricoin[3]; Patricia S. Steeg[2]; Yingming Zhao*[1]; *[1]UT Southwestern Medical Center, Dallas, Texas, USA; [2]National Cancer Institute, NIH, Bethesda, Maryland, USA; [3]Food Drug Administration, Bethesda, Maryland, USA; [4]Harvard University, Boston, Massachusetts, USA; [5]UT MD Anderson Cancer Center, Houston, Texas, USA*

TPB 052 **Differential Proteomics of K562 Human Leukemia Cell Line;** Petr Halada*[1]; Petr Man[2]; Petr Pompach[2]; Dana Grebenova[3]; Vladimir Havlicek[1]; Zbynek Hrkal[3]; *[1]Institute of Microbiology, Prague, Czech Republic; [2]Department of Biochemistry, Charles University, Prague, Czech Republic; [3]Institute of Hematology and Blood Transfusion, Prague, Czech Republic*

TPB 053 **Differential Protein Expression in Human Breast Cancer Tissue: 2D-DIGE and Mass Spectrometry Analysis of pure Cell populations Captured by Laser Micro dissection;** Anthony G Sullivan*[1]; Stephen Russell[1]; Reid Asbury[2]; Jeff Hooke[3]; Lisa McGrail[3]; Craig Shriver[3]; Richard I Somiari[1]; *[1]Windber Research Institute, Windber, PA; [2]Amersham Biosciences, Piscataway, NJ; [3]Clinical Breast Care Project, Walter Reed Army Medical Center, Washington, DC*

TPB 054 **Identification protein markers for colorectal carcinoma;** Yi Gong; Lianhai Zhang; Ge Zhou; Yingxin Zhao; Yue Chen; Carlos Becerra; Richard Gaynor; Yingming Zhao*; *UT Southwestern Medical Center, Dallas, TX, USA*

TPB 055 **Interlysate Studies of Ovarian Cancer Using a Mass Mapping Technique;** Haixing Wang*[1]; Maureen, T Kachman[2]; David, M Lubman[1]; *[1]The University of Michigan, Department of Chemistry, Ann Arbor, Michigan; [2]The University of Michigan, Medical School, Ann Arbor, Michigan*

TPB 056 **A 2D gel based proteomic study of human colo-rectal carcinogenesis;** Dominic O Gostick*[1]; James I Langridge[1]; Emmanualle Claude[1]; Ayodele Alaiya[3]; Gert Auer[2]; *[1]Micromass UK Ltd, Manchester, UK; [2]Cancer Centre, Karolinska Institute, Stockholm,*

Sweden; [3]Unit of Cancer Proteomics, Karolinska Hospital, Stockholm, Sweden

TPB 057 **Towards The Development of a Map of Human Ubiquitinated Cellular Proteins via Affinity Mass Spectrometry: Evaluation of Various Strategies for Capturing Polyubiquitinated Proteins in High Yields for MS Analysis;** Tarikere L Gururaja*; Weiqun Li; Liming Dong; Mark K Bennett; Donald G Payan; D C Anderson; *Rigel Pharmaceuticals Inc., South San Francisco, California, USA*

TUESDAY POSTERS
Proteomics: Fundamental Studies

TPC 058 **SEAMing Proteins from the TAP: Charting Protein Interaction Networks in Yeast by Tandem Affinity Purification and Mass Spectrometry;** Anna Shevchenko[1]; Daniel Schaft[2]; Assen Roguev[2]; Pim Pijnappel[2]; Jan Havlis[1]; Francis Stewart[2]; Andrej Shevchenko*[1]; *[1]MPI of Molecular Cell Biology and Genetics, Dresden, Germany; [2]Techical University of Dresden, Dresden, Germany*

TPC 059 **Evaluating Albumin Depletion from Human Serum with 2D/LC;** Kelli J. Biederman*[1]; Beth L. Allen[1]; Richard C. Jones[1]; Michael R. Pisano[1]; Mary C. Hurley[2]; Ricky D. Edmondson[1]; *[1]Proteomic Research Services, Inc., Ann Arbor, MI; [2]Genomic Solutions, Inc., Ann Arbor, MI*

TPC 060 **Factors that Affect Protein Identification Using MS/MS Peptide Mapping;** Haofei Wang[1]; Scot R. Weinberger[2]; Ron Orlando*[1]; *[1]CCRC/UGA, Athens, GA; [2]Ciphergen Biosystems, Inc, Fremont, CA*

TPC 061 **A proteomic study of the biological function of the p300 and CBP, a potential E3 ligase;** Qi Huang*; Weiqun Li; Dave Anderson; *Rigel Pharmaceuticals, South San Francisco, CA*

TPC 062 **An alternative 2D strategy using sucrose gradients and 1D PAGE on highly purified heart mitochondria. High throughput mitochondrial proteomics;** Bing Zhang[1]; Steven W. Taylor*[1]; Dale Warnock[1]; Gary Glenn[1]; Eoin Fahy[1]; Bradford W. Gibson[2]; Roderick A. Capaldi[3]; Soumitra Ghosh[1]; *[1]MitoKor, San Diego, CA; [2]The Buck Institute, Novato, CA; [3]The University of Oregon, Eugene, OR*

TPC 063 **Characterization of *Shewanella oneidenis* cytochrome c proteins by reversed phase liquid chromatography electrospray ionization Fourier-transform ion cyclotron resonance tandem mass spectrometry;** Bogdan Bogdanov[1]; Gordon A. Anderson[1]; Margret F. Romine[1]; Ljiljana Pasa-Tolic[1]; Mary S. Lipton[1]; Alexander Tsapin[2]; Richard D. Smith*[1]; *[1]Pacific Northwest National Laboratory, Richland, WA; [2]Jet Propulsion Laboratory, Pasadena, CA*

TPC 064 **Nano lockspray for enhanced mass measurement accuracy in proteomics studies;** Alan L. Millar*; James I. Langridge; Therese McKenna; Steve Pringle; Robert Bateman; Kevin Giles; John Hoyes; Phil Young; *Micromass UK Ltd, Manchester, UK*

TPC 065 **Characterizing Influenza Virus Surface Structure with Mass Spectrometry;** Sunia A. Trauger*[1]; Donghui Yi[2]; Enona Gopinath[2]; Hersh Mehta[2]; Gary Siuzdak[1]; *[1]Beckman Center for Chemical Science, The Scripps Research Institute, La Jolla, CA; [2]Aviron, Mountain View, CA*

TPC 066 **Feasibility of Expression Dependent Analysis Using ICAT™ Reagents on a Hybrid Quadrupole-Linear Ion Trap Mass Spectrometer;** Tina A. Settineri*; Christie L. Hunter; Lydia Nuwaysir; Alpesh Patel; Yves Leblanc; Chris Paulse; Chris Paulse; Chris Paulse; *Applied Biosystems, Foster City, CA*

TPC 067 **Proteomic analysis of human nucleoli using tandem mass spectrometry;** Alexander Scherl*[1]; Yohann Couté[2]; Catherine Déon[1]; Aleth Callé[2]; Karine Kindbeiter[2]; Jean-Charles Sanchez[1]; Anna Greco[2]; Denis Hochstrasser[1]; Jean-Jacques Diaz[2]; *[1]Geneva University Hospital, Geneva, Switzerland; [2]ISERM U369, RTH Laennec University, Lyon, France*

TPC 068 **Analysis of Posttranslational Modifications of α-A-Crystallin during aging of the eye lens;** Heike Schaefer*[1]; Albert Sickmann[1]; Marion Herrmann[2]; Joachim Klose[2]; Helmut E. Meyer[1]; *[1]Ruhr-Universitaet, Inst. f. Physiol. Chemie, Medical Proteom-Center, Bochum, Germany; [2]Humboldt Universitaet, Charite, Inst. f. Humangenetik, Berlin, Germany*

TPC 069 **Reproducibility in LC-MS Analysis of Complex Peptide Mixtures Generated from Cellular Lysates;** Theresa L. Savage[1]; Reno T. Nguyen[1]; Nathan C. VerBerkmoes[2]; Robert L. Hettich*[3]; *[1]Grace Vydac, Hesperia, CA; [2]GST, University of Tennessee/Oak Ridge National Laboratory, Oak Ridge, TN; [3]Chemical Sciences Division, Oak Ridge National Laboratory, Oak Ridge, TN*

TPC 070 **Toxicogenomics/proteomics of Non-Genotoxic Carcinogens;** Kenneth B. Tomer*; Joshua Dubin; Theodora R. Devereux; Mari Lida; Robert Sills; Michael Cunningham; Rick Paules; Maribel Bruno; Jennifer Hartis; Stella Sieber; Barbara Wetmore; B. Alex Merrick; *National Institute of Environmental Health Sciences, Research Triangle Park, NC*

TPC 071 **Characterization and cDNA cloning of an immune-induced lysozyme from cultured </I>Aedes albopictus</I> mosquito cells;** Vida P. Hernandez[2]; LeeAnn Higgins*[1]; Ann M. Fallon[2]; *[1]University of Minnesota, Department of Biochemistry, Molecular Biology, St. Paul, Minnesota; [2]University of Minnesota, Department of Entomology, St. Paul, Minnesota*

TUESDAY POSTERS
Proteomics: Labeling, Affinity and Quantitation Techniques

TPD 072 **Controlling Deuterium Isotope Effects In Comparative Proteomics;** Roujian Zhang*; Cathy S. Sioma; Robert A. Thompson; Fred E. Regnier; *Purdue University, West Lafayette, IN*

TPD 073 **Using LC-MS in Conjunction with Metabolic ^{15}N Labeling to Investigate the Variability in Protein Expression for Similar Wild Type E.Coli Cultures;** Jennifer D. Webster[1]; Edixa de L. Jimenez[1]; Jason J. Evans*[1]; Arulvathani Arudchandran[2]; Robert J. Crouch[2]; Sanford Markey[3]; *[1]University of Massachusetts Boston, Boston, MA; [2]National Institutes of Health, NICHD, Bethsda, MD; [3]National Institutes of Health, NIMH, Bethesda, MD*

TPD 074 **Sterically Hindered Disulfides: Towards Selectively Cleaving Reducible ICAT Reagents;** Carlos G. Gartner; Mark Jedrychowski; Steven Gygi*; *Harvard Medical School, Boston, MA*

TPD 075 **Direct quantitative profiling of proteins in complex biological systems by nano electrospray mass spectrometry without tagging or isotopic standards;** Weixun Wang; Thomas A. Shaler; Scott M. Norton; Lander R. Hill; Christopher H. Becker*; *SurroMed, Inc., Mountain View, California*

TPD 076 **Mass difference scanning of isotopically labeled peptides for protein quantification by LC-MS/MS;** Jesper V. Olsen*[1]; Dan B. Kristensen[1]; Jacek R. Wisniewski[1]; Gitte Jespersen[1]; Shao-En Ong[2]; Matthias

Mann[1]; [1]*MDS Proteomics, Odense, Denmark;* [2]*Protein Interaction Laboratory, University of Southern Denmark, Odense, Denmark*

TPD 077 **DNA-protein and protein-protein interactions by DNA affinity capture-LC/MS/MS;** Thomas K. Bane*[1]; Jeanne M. LeBon[1]; Terry D. Lee[2]; Arthur D. Riggs[1]; [1]*Division of Biology, Beckman Research Institute, Duarte, CA;* [2]*Division of Immunology, Beckman Research Institute, Duarte, CA*

TPD 078 **Protein Expression Changes During Tomato Fruit Ripening Determined Using Difference In-Gel Electrophoresis (DIGE) and Matrix-Assisted Laser Desorption Ionization Mass Spectrometry (MALDI-ToF);** Chris R Rozanas*[1]; Phil Beckett[1]; G Reid Asbury[1]; Carmen Catala[2]; Jocelyn K C Rose[2]; [1]*Amersham Biosciences, Piscataway, New Jersey;* [2]*Cornell University, Ithaca, New York*

TPD 079 **Proteomic Analysis of Mouse Cortical Neurons by Isotope-coded Affinity Tags and Mass Spectrometry;** Li-Rong Yu[1]; Mark D. Johnson[2]; Thomas P. Conrads[1]; Sang-Won Lee[1]; Ronald J. Moore[1]; Nikola Tolic[1]; Richard S. Morrison[2]; Timothy D. Veenstra[1]; Richard D. Smith*[1]; [1]*Pacific Northwest National Laboratory, Richland, Washington;* [2]*University of Washington School of Medicine, Seattle, Washington*

TPD 080 **Novel Labeling Reagents that Enable Simultaneous Quantitation and Increased Sequence Coverages in a Fully Automated LC/MALDI MS Proteomics Platforms;** Eric C. Peters*; Qui Phung; David M. Horn; Ansgar Brock; Christer Ericson; *Genomics Institute of the Novartis Research Foundation, San Diego, California*

TPD 081 **Combining 14N/15N Metabolic Labeling and Phosphoprotein Isotope-coded Affinity Tags (PhIAT) for Proteomic Analysis Using LC-MS/MS;** Michael B. Goshe*; Kim Alving; Ellen A. Panisko; Richard D. Smith; *Pacific Northwest National Laboratory, Richland, WA*

TPD 082 **Accurate Protein Identification by MALDI-TOF PMM Using Single Peptide with Multiple Amino Acids Mass-tagging for Human Proteome;** Songqin Pan; Sheng Gu; E. Morton Bradbury; Xian Chen*; *Los Alamos National Laboratory, Los Alamos, NM*

TPD 083 **Capillary LC MALDI-TOF-MS for the Analysis of Complex ICAT Labeled Protein Mixtures;** Remco van Soest*[1]; Emmanuel Varesio[1]; Irina Braaf-Dragan[1]; Hookeun Lee[2]; Timothy J. Griffin[2]; Ruedi Aebersold[2]; [1]*LC Packings-A Dionex Company, San Francisco, CA, USA;* [2]*The Institute for System Biology, Seattle, Washington, USA*

TPD 084 **Quantification of Tumor Associated Antigens;** Jennie R. Lill; Marina Hincapie; Roman M. Chicz; Andy J. Tomlinson*; *ZYCOS Inc., Lexington, MA*

TPD 085 **Protein identification and quantitation with affinity-based isolation followed by automated chip-based electrospray ionization mass spectrometry;** Xian Huang*; Sheng Zhang; Colleen K. Van Pelt; Gary A. Schultz; *Advion BioSciences, Inc., Ithaca, NY*

TPD 086 **Utilizing Stable Isotope Labeling for Improved Identification and Quantitation in Proteomics;** Hai Luo; Li-Rong Yu; Eric F. Strittmatter; Keqi Tang; Yufeng Shen; Ron J. Moore; Michael B. Goshe; David G. Camp; Mary S. Lipton; Richard D. Smith*; *Pacific Northwest National Laboratory, Richland, Washington*

TPD 087 **Stable Isotope Labelling-Isotope Ratio Monitoring Mass Spectrometry: a Superior Method for Quantitative Differential Proteomics;** Paolo Lecchi*; Ricardo E Perez; Fred P Abramson; *George Washington University-School of Medicine and Health Sciences, Washington DC, USA*

TPD 088 **Multiple Isotope Labeling in Comparative Proteomics;** Peiran Liu*; *Purdue University, west lafayette, Indiana, USA*

TPD 089 **Abundance correlation in GIST labeled peptides for identifying proteins in mixtures;** Rena A. Sowell; John A. Taraszka; Katianna A. Pihakari; Jennifer M. Kindy; David E. Clemmer*; *Indiana University, Bloomington, Indiana*

TPD 090 **Quantitative Protein Characterization with Gas-Phase Electromobility Analysis;** Tanya Q Shang*; Murray V Johnston; *University of Delaware, Newark, DE*

TPD 091 **Amino Acid Residue-Specific Stable Isotope Labeling for Quantitative Proteomics;** Haining Zhu[1]; E. Morton Bradbury[2]; Xian Chen*[1]; [1]*Los Alamos National Laboratory, Los Alamos, NM;* [2]*University of California, Davis, Davis, CA*

TPD 092 **Absolute Protein Quantification for Proteomics;** Phillip J. Elms; Koen Van der Drift; Christoph H. Borchers*; *Department of Biochemistry and Biophysics, Univ. of North Carolina-CH, Chapel Hill, NC*

TPD 093 **Monitoring protein expression profiles between differentiated cells using the normalized abundance of native tryptic peptides;** Denis Faubert*; Frank Morales; Sylvain Brunet; Marguerite Boulos; Sandro Masciotra; Joachim Ostermann; Pierre Thibault; *Caprion Pharmaceuticals, Saint-Laurent, Canada*

TPD 094 **Quantification of protein regulation in ecdysone-induced *Drosophila* K_c cells using a capillary HPLC / FT-MS approach;** John A. Taraszka*[1]; Rena A. Sowell[1]; Katianna A. Pihakari[1]; Yehia Mechref[1]; Lucy Cherbas[2]; Peter Cherbas[2]; Milos V. Novotny[1]; David E. Clemmer[1]; [1]*Department of Chemistry, Indiana University, Bloomington, IN;* [2]*Department of Biology, Indiana University, Bloomington, IN*

TPD 095 **Labeling Stratigies to Aid Protein Identification in Comparative Proteomics;** Charles McEwen*[1]; Tanya Shang[2]; Bijan Eliasi[1]; Barbara Larsen[1]; [1]*DuPont, Wilmington, DE;* [2]*The University of Delaware, Newark, DE*

TPD 096 **Quantitative MALDI-TOF-MS of Proteins Using d-Labeled *N*-Ethylmaleimides;** Sadamu Kurono[1]; Satomi Niwayama[2]; Hiroyuki Matsumoto*[1]; [1]*The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma;* [2]*Oklahoma State University, Stillwater, Oklahoma*

TPD 097 **Using ICAT™ Reagent Technology and Current Software Tools to Study a Time Course for Protein Release during the Mitochondrial Permeability Transition;** Christie L Hunter*[1]; Lydia Nuwaysir[1]; Tina Settineri[1]; H. Ewa Witkowska[1]; Sally U[1]; Xinyi Zhang[2]; Patrick B Walter[2]; Mark K Shigenaga[2]; [1]*Applied Biosystems, Foster City, CA;* [2]*Children's Hospital Oakland Research Institute, Oakland, CA*

TPD 098 **A Novel Approach to Quantitate Protein Expression Differences in Human Hepatocellular Carcinoma;** Vince CX Gao*[1]; Paik Y Ki[2]; Young-Ki Paik Paik[2]; Kang Sik Park[2]; Hoguen Kim[2]; Dale Patterson[1]; Jason N Marchese[1]; Brian Williamson[1]; Peter Juhasz[1]; [1]*Applied Biosystems, Foster City, CA;* [2]*Yongsei Proteome Research Center, Seoul, Korea*

TPD 099 **Quantitation of Insulin Using MALDI TOFMS;** Cynthia Chavez-Eng; Kevin Owens*; *Drexel University, Philadelphia, PA*

TPD 100 **Deconvolution Of 16O2/16O1-18O1/18O2 Coded Peptide Spectra In Comparative Proteomics;** Roujian Zhang*; Fred E. Regnier; *Purdue University, West Lafayette, IN*

TPD 101 **An *in vivo* labeling strategy with D3-leucine for quantitative proteomics applied to the study of muscle cell differentiation;** Shao-En Ong*[1]; Akhilesh Pandey[1]; Blagoy Blagoev[1]; Irina Kratchmarova[1]; Minerva Fernandez[1]; Hanno Steen[1]; Dan B Kristensen[2]; Matthias Mann[1]; *[1]Dept. Biochemistry & Molecular Biology, University of Southern Denmark, Odense, Denmark; [2]MDS Proteomics, Odense, Denmark*

TPD 102 **Multiplexed Global Internal Standard Technology For High Throughput Proteomics;** Asish Chakraborty; Cathy S. Sioma; Roujian Zhang*; Robert A. Thompson; Fred E. Regnier; *Purdue University, West Lafeyette, IN*

TPD 103 **Comparative Proteomics of Protein Phosphorylation;** Larry D. Riggs[1]; Erin H. Seeley[1]; Natalia A. Penner[1]; Fred E. Regnier*[1]; Steve Hooser[2]; *[1]Purdue University, Department of Chemistry, West Lafayette, IN; [2]Purdue University, Department of Veterinary Pathobiology, West Lafayette, IN*

TPD 104 **Moving stable isotopes up into the food chain: quantitative proteomics in C. elegans using metabolic labeling;** Jeroen Krijgsveld*[1]; Janik Johansen[1]; Rene Ketting[2]; Albert J.R. Heck[1]; *[1]Biomol Mass Spectrometry, Utrecht University, Utrecht, The Netherlands; [2]Hubrecht Laboratory, Netherlands Institute of Developmental Biology, Utrecht, The Netherlands*

TPD 105 **Quantitation and End Sequencing of ^{18}O labelled Peptides by Orthogonal MALDI Tandem Mass Spectrometry;** Michael L. Nielsen*[1]; Keiryn L. Bennett[1]; Brett Larsen[2]; Jacek R. Wisniewski[1]; Alexandre Podtelejnikov[1]; Matthias Mann[1]; *[1]MDS Proteomics A/S, Odense, Denmark; [2]MDS Proteomics Inc., Toronto, Canda*

TPD 106 **Comparative Proteomics and Cancer;** Li Xiong; Fred E. Regnier*; Dina Andrews; *Purdue University, West Lafayette, IN 47907*

TPD 107 **Deconvolution of Mixed Isotope Distribution Patterns for Quantitative Proteomics;** Steven H. Seeholzer*; Anthony T. Yeung; Randy Strich; *Fox Chase Cancer Center, Philadelphia, Pennsylvania*

TUESDAY POSTERS
Peptides: Fragmentation Sequencing

TPE 108 **High Throughtput De Novo Sequencing;** Fernando Maroto*[1]; Michaela Scigelova[1]; Craig Dufresne[1]; Jesus Vazquez[2]; *[1]Thermo Finnigan, San Jose, CA; [2]Centro de Biologia Molecular Severo Ochoa, Madrid, Spain*

TPE 109 **Thermally-Assisted Collision-Induced Dissociation in a Quadrupole Ion Trap;** Alawee H. Racine*; Anne H. Payne; Gary L. Glish; *University of North Carolina, Chapel Hill, North Carolina*

TPE 110 **Dissociation of Arginine containing peptides in a quadrupole ion trap;** Joshua F. Emory*; Gary L. Glish; *University of North Carolina at Chapel Hill, Chapel Hill, North Carolina*

TPE 111 **Fragmentation reactions of protonated oligopeptides containing proline;** Natasha Grewal*[1]; Alex G. Harrison[2]; Alan C. Hopkinson[1]; Christopher F. Rodriquez[1]; Houssain El. Aribi[1]; K.W. Michael Siu[1]; *[1]York University, Toronto, Canada; [2]University of Toronto, Toronto, Canada*

TPE 112 **How Important are 5-membered Rings in the CID of Metal Cationized Peptides?;** Michael J. Van Stipdonk*; Victor Anbalagan; Erach R. Talaty; Sammer Tekarli; *Department of Chemistry, Wichita State University, Wichita, Kansas*

TPE 113 **Evidence of Intraionic Interactions in Arginine Containing Peptides and Their Influence on Peptide Ion Fragmentation;** Joanne B. Connolly*; Luciana J.O. Figueiredo; Simon J. Gaskell; *UMIST, Manchester, UK*

TPE 114 **Competitive dissociations under transition metal control from negative peptide species in ESI/ITMS;** Anne Bossée[1]; Françoise Fournier[2]; Olivier Tasseau[2]; Bruno Bellier[1]; Jean-Claude Tabet*[2]; *[1]Centre d'Etudes du Bouchet, Vert le Petit, France; [2]University of Paris VI (LCSOB), Paris, France*

TPE 115 **Electron Capture Dissociation of Peptides Following Gas-Phase Hydrogen/ Deuterium Exchange;** Melinda A. McFarland*[1]; Robert R. Hudgins[1]; Kristina Håkansson[1]; Christopher L. Hendrickson[2]; Alan G. Marshall[2]; *[1]National High Magnetic Field Laboratory, Florida State University, Tallahassee, Florida; [2]NHMFL, Dept. of Chemistry & Biochemistry, Florida State University, Tallahassee, Florida*

TPE 116 **ESI-FTICR MS With Infrared Multiphoton Dissociation : Analysis of Fragmentation of Peptides;** Kazuhiko Fukui*[1]; Yutaka Akiyama[1]; Katsutoshi Takahashi[1]; Yasuhide Naito[2]; *[1]Computational Biology Research Center (CBRC), AIST, Tokyo, Japan; [2]School of Materials Science, JAIST, Tatsunokuchi, Ishikawa, Japan*

TPE 117 **Comparison of Collision-Induced Dissociation and Electron Capture Dissociation for Structural Characterization Proteins with High Proline Content;** Nancy M. Leymarie*; Eric A. Berg; Mark E. McComb; Peter B. O'Connor; Catherine E. Costello; *Boston Univeristy School of Medicine, Boston, MA*

TPE 118 **Predicting MS/MS Peptide Fragmentation Patterns: Beyond SEQUEST;** Joshua E Elias; Francis Gibbons; Carson Thoreen; Hanno Steen; Junmin Peng; Frederick Roth; Steven P. Gygi*; *Harvard University Medical School, Boston, MA*

TPE 119 **The role of amino acid N-methylation in cyclosporins on ring opening and fragmentation mechanisms during collisionally induced dissociation on an ion trap;** Marek Kuzma[1]; Alexandr Jegorov[2]; Antti Hesso[3]; Jarkko Tornaeus[3]; Petr Kacer[1]; Petr Sedmera[1]; Vladimir Havlicek*[1]; *[1]Institute of Microbiology, Prague, Czech Republic; [2]Galena Co., Ceske Budejovice, Czech Republic; [3]Finnish Institute of Occupational Health, Helsinki, Finland*

TPE 120 **Direct Identification of Large Native Peptides (≥10kDa) Using Electrospray Ionisation on a Hybrid Quadrupole Orthogonal Acceleration Time-of-flight (Q-TOF) Mass Spectrometer;** Thomas Moehring*[1]; Markus Kellmann[1]; Susanne Neitz[1]; Iain Campuzzano[2]; John Hoyes[2]; Phil Young[2]; Alan Millar[2]; Jim Langride[2]; *[1]BioVisioN AG, Hannover, Germany; [2]Micromass Limited UK, Manchester, United Kingdom*

TPE 121 **Tandem Mass Spectrometry of Prophenin and Other Proline Rich Proteins;** Yuqin Wang; William J Griffiths*; *Karolinska Institute, Stockholm, Sweden*

TPE 122 **A Comparison of Negative and Positive Ion MALDI-TOF Post Source Decay for Peptides Containing Basic Residues;** Nigel L. Clipston*; Carolyn J. Cassady; *University of Alabama, Tuscaloosa, USA*

TPE 123 **Tandem Mass Spectrometry Analysis of Crosslinked Proteins and Protein Complexes;** Gregory B. Hurst*[4]; Matthew Sega[1]; James L. Stephenson[2]; Patricia K. Lankford[4]; Jana L. Lewis[3]; *[1]Oak Ridge National*

Laboratory, Oak Ridge, TN; [2]University of Tennessee--Knoxville, Knoxville, TN; [3]Research Triangle Institute, Raleigh, NC; [4]Lawrence University, Appleton, WI

TPE 124 **Sequence Determination of the Sexual Attractant Peptides in the Axial Breeding Glands of African Clawed Frog Hymenochirus Using Electrospray Mass Spectrometry;** Yu Wang*; Carson Lawall; Chris Cox; O. David Sparkman; Eric O. Thomas; Patrick R. Jones; *University of the Pacific, Stockton, CA*

TPE 125 **Characterization of Cyclic Peptides by Electrospray Ion Trap and Electrospray Q-TOF Mass Spectrometry;** Julia Gross*[1]; Yong-Xian Cheng[2]; Qi-De Han[3]; Jun Zhou[2]; Michael L. Gross[4]; *[1]Donald Danforth Plant Science Center, St. Louis, MO; [2]State Key Laboratory of Phytochemistry, Kunming, China; [3]Cardiovascular Insitute, Beijing, China; [4]Washington University of St. Louis, St. Louis, MO*

TPE 126 **Prediction of Low-Energy CID Spectra of Peptides;** Zhongqi Zhang*; *Amgen Inc., Thousand Oaks, California*

TPE 127 **Baklava score - A uniform means for describing peptide MS/MS sequence information content across instruments;** Karl Clauser*; Terri Addona; Hasmik Keshishian; Steven A. Carr; *Millennium Pharmaceuticals, Inc., Cambridge, MA*

TPE 128 **Combinatorial Peptide Sequencing Following Partial Acid Hydrolysis and MALDI-TOF Mass Spectrometric Mass Mapping;** Soo-Jin Park; Soohwan Sul; Sung-Hwan Oh; Hie-Joon Kim*; *School of Chemistry & Molecular Engineering, Seoul National University, Seoul, Korea*

TPE 129 **Using Gas-phase H/D Exchange Reactions to Identify Different Fragment Ion Conformers;** Alireza Fattahi; Touradj Solouki*; *University of Maine, Orono, Maine*

TPE 130 **The Fragmentation Behavior of Disulfide-Linked Peptides before and after Charge Derivatization with Analysis by LC-CID-MS/MS;** Xue Li; Wei Wu; J. Throck Watson*; *Michigan State University, East Lansing, MI*

TPE 131 **Improving Coverage in a Proteomics Experiment by Use of an Advanced de Novo Sequencing Program;** Tina A. Hemenway*[1]; Fernando M. Maroto[1]; Eugene C. Yi[2]; Samuel Purvine[2]; Marcello Marelli[2]; John Aitchison[2]; David R. Goodlett[2]; *[1]ThermoFinnigan, San Jose, CA; [2]Institute for Systems Biology, Seattle, WA*

TPE 132 **Energetics and Mechanisms of Peptide Fragmentation From Surface-Induced Dissociation Studies;** Thomas H. Bailey*[1]; Julia Laskin[2]; Jean H. Futrell[2]; *[1]University of Delaware, Newark, DE; [2]Pacific Northwest Nation Lab, Richland, WA*

TPE 133 **Develop Microwave Assisted FAB/MS and LC ESI/MS/MS Methods for Determination of Cyclic Peptide Sequence;** Yao H. Ing[1]; Li-Kang Zhang*[1]; Ben N. Pramanik[1]; Ajay K. Bose[2]; S. N. Ganguly[1]; Yan-Hui Liu[1]; Peter L. Bartner[1]; *[1]Schering-Plough Research Institute, Kenilworth, NJ 07033; [2]George Barasch Bioorganic Research Lab., Steven Institute of Tech., Hoboken, NJ 07030*

TPE 134 **Backbone Dissociations in Neutral and Charged Peptide Radicals. A B3-MP2 Computational Study;** Frantisek Turecek*; *University of Washington, Seattle, WA*

TPE 135 **Computer Algorithm for Peptide Sequencing Based on an Improved Fragmentation Model;** Yingying Huang*[1]; Joseph M. Triscari[2]; Vicki H. Wysocki[1]; *[1]Department of Chemistry, University of Arizona, Tucson, Arizona; [2]Science Application International Corporation, Tucson, Arizona*

TPE 136 **Complimentary Sequence Information: A Comparison of the SORI, IRMPD and ECD Fragmentation of Melittin;** Aaron G Fountain*; Kevin C Crellin; Robert T McIver, Jr; *IonSpec Corporation, Lake Forest, CA*

TPE 137 **Further Insights On The Rearrangement Of Peptide Ions A Quadrupole Ion Trap;** Laura L. Glish; Anne H. Payne; Gary L. Glish*; *University of North Carolina, Chapel Hill, NC*

TPE 138 **The Comparison of Automated Sequencing Algorithms for CID MS/MS Spectra Generated by Ion Trap and Q-TOF;** Lori L. Smith[1]; Ashok R. Dongre[2]; Vicki H. Wysocki*[1]; *[1]University of Arizona, Tucson, Arizona; [2]Bristol Myers Squibb, Princeton, New Jersey*

TPE 139 **Comparative Multi-stage CID of Protonated and Metal Cationized Peptides;** Asiri Perera; Victor Anbalagan; Jessica Barr; Ky-Diu Tran; Marcus Barber; Michael Van Stipdonk*; *Wichita State University, Wichita, Kansas*

TPE 140 **De novo sequencing of tryptic peptides using MALDI-ToF;** Maria Liminga*; Rama Bhikhabhai; Daniel Ivansson; Jean-Luc Maloisel; Ronnie Palmgren; *Amersham Biosciences, Uppsala, Sweden*

TPE 141 **A Study of Phosphotyrosine Containing Peptides by Atmospheric Pressure MALDI (AP MALDI) Quadrupole Ion Trap Mass Spectrometry;** Susanne C. Moyer[1]; Amina S. Woods[2]; Robert J. Cotter*[3]; *[1]Johns Hopkins University, Baltimore, Maryland; [2]National Institute on Drug Abuse, IRP, NIH, Baltimore, Maryland; [3]Johns Hopkins University School of Medicine, Baltimore, Maryland*

TUESDAY POSTERS
Nucleic Acids

TPF 142 **Identification of DNA Reaction Products With Anti-Tumor Agents Using LC/MS and MS/MS;** Nan M. Kleinholz[1]; Kari B. Green-Church*[1]; Megan D. Demers[2]; Robert S. Coleman[2]; *[1]Campus Chemical Instrument Center, The Ohio State University, Columbus, OH; [2]Department of Chemistry, The Ohio State University, Columbus, OH*

TPF 143 **Differentiation of Isomeric Alkylaniline Adducts of 2'-Deoxyguanosine by Electrospray Ionization and Quadrupole Ion Trap Mass Spectrometry;** Linge Li[1]; M. Paul Chiarelli*[1]; Paula S. Branco[2]; Matilde Marques[2]; Alexandra M. Antunes[2]; Frederick A. Beland[3]; *[1]Loyola University, Chicago, IL; [2]New University of Lisbon, Lisbon, Portugal; [3]National Center for Toxicological Research, Jefferson, AR*

TPF 144 **Analysis of Synthetic Oligonucleotides Using ESI-TOF Mass Spectrometry;** Xiaohui Chen*; John Van Peborgh; Ravi Vinayak; Tim Geiser; *Applied Biosystems, Foster City, CA*

TPF 145 **Replication of linkage results using MALDI-TOF detection of single nucleotide polymorphisms (SNPs);** Rebekah Gundry[1]; David Hayden[2]; Paul Boyce[2]; Amy Voltz[3]; Elise Luong[3]; Elizabeth Pugh[3]; Michael Kelley[4]; Rebecca Fan[2]; Dane Witmer[2]; Kimberly Doheny*[2]; *[1]Johns Hopkins University School of Medicine, Dept of Pharmacology, Baltimore, MD; [2]Center for Inherited Disease Research, JHMI, IGM, Baltimore, MD; [3]IDRB, NHGRI, NIH, Bethesda, MD; [4]Duke University, Durham, NC*

TPF 146 **Quantification of 15-mer Antisense Oligonucelotide in Human Plasma by Liquid Chromatography-**

Tandem Mass Spectromerty; Ateeq Ahmad[1]; Sumsullah Khan[*1]; Larry Duan[2]; Lee Anderson[2]; Bashir Mansoori[2]; Sherwin Jiang[2]; Yongdong Zhu[2]; Ben Chien[2]; Imran Ahmad[1]; *[1]NeoPharm Inc., Waukegan, IL , USA; [2]Quest Pharmaceutical Services, L.L.C., NeWark, DE, USA*

TPF 147 **Clustering of Nucleobases with Alkali Metals Using Electrospray Ionization/Tandem Mass Spectrometry: Implications for Mechanisms of Multistrand DNA Stabilization;** Kim J. Koch; Tenna Aggerholm; Sergio C. Nanita[*]; R. Graham Cooks; *Purdue University, West Lafayette, Indiana*

TPF 148 **Structural Charaterization of Oligonucleotide Strands by Energetic Collision within Orifice-Skimmer Region Using Electrospray Ionization Mass Spectrometry (ESI MS);** Xinhua Guo; Darryl Davis; Michael Bruist; Catherine Bentzley[*]; *University of the Sciences in Philadelphia, Philadelphia, PA*

TPF 149 **HPLC Isolation and Mass Spectrometric Characterization of Isomeric Pyrimidine Glycols;** Vivekananda Shetty; Yinsheng Wang[*]; *University of California at Riverside, Riverside, CA*

TPF 150 **genoSNIP: A novel method for MALDI-TOF SNP genotyping;** Markus Kostrzewa[*]; Thomas Elssner; Kristina Fahr; Thomas Wenzel; *Bruker Saxonia Analytik GmbH, Leipzig, Germany*

TPF 151 **The formation of stable proton-bound dimers and the evaluation of the proton affinity by the Kinetic Method;** Donatella Armentano[1]; Giovanni De Munno[1]; Leonardo Di Donna[1]; Anna Napoli[1]; Giovanni Sindona[*1]; Gianluca Giorgi[2]; Laura Salvini[2]; *[1]Dipartimento di Chimica, Università della Calabria, Arcavacata di Rende (CS), Italy; [2]CIADS, Università di Siena, Siena, Italy*

TPF 152 **Facile method for determining single nucleotide polymorphisms (SNP) haplotypes based on MALDI mass spectrometry;** Jorg Tost; Ole Brandt; Ivo G Gut[*]; *Centre National de Genotypage, Evry, France*

TPF 153 **Analysis and quantification of DNA methylation of CpG sites by MALDI mass spectrometry;** Philipp Schatz[1]; Jorg Tost[2]; Ivo G Gut[*2]; *[1]Epigenomics, Berlin, Germany; [2]Centre National de Genotypage, Evry, France*

TPF 154 **LC/MS Monitoring of the Enzymatic Incorporation of Modified Nucleotides in DNA;** Jef Rozenski[*]; Karen Vastmans; Arthur Van Aerschot; Piet Herdewijn; *Rega Institute for Medical Research, Leuven, Belgium*

TPF 155 **ESI-MS Investigation of Quadruplex DNA and Quadruplex DNA:Drug Interactions;** Wendi M. David; Jennifer S. Brodbelt[*]; *University of Texas at Austin, Austin, TX*

TPF 156 **Quantitative Determination of N-methyl-N-nitrosourea-induced in vitro and in vivo DNA Methylation by LC-UV-MS-MS;** Yanan Yang; Yongmei Li; Dejan Nikolic; Mihae Hong; Steven B. Swanson; Richard B. van Breemen[*]; *College of Pharmacy, University of Illinois at Chicago, Chicago, IL*

TPF 157 **The sequence of isomeric dinucleotides, bearing 5' or 3'-terminal phosphate groups, is not correlated to the proton affinity of the nucleobases;** Leonardo Di Donna[1]; Anna Napoli[1]; Giovanni Sindona[*1]; Luciano Cellai[2]; Gianluca Giorgi[3]; Laura Salvini[3]; *[1]Dipartimento di Chimica, Università della Calabria, Arcavacata di Rende (CS), Italy; [2]Ist. Strutturistica Chimica, CNR, Roma, Italy; [3]CIADS, Università di Siena, Siena, Italy*

TPF 158 **Determination of OSI-7836 (4-THIO-ARA-C) Incorporation into DNA Using LC-MS/MS;** Christopher B. Black[*1]; Edward M. Wells[1]; Frank Richardson[2]; *[1]CEDRA Corporation, Austin, Texas; [2]OSI Pharmaceuticals, Boulder, Colorado*

TPF 159 **A Comparison of MALDI and ESI for Analysis of DNA-Dirhodium Adducts;** John M. Koomen[*]; Mijeong Kang; Helen Chifotides; Kim R. Dunbar; David H. Russell; *Texas A&M University, College Station, TX*

TPF 160 **Mass spectrometry for the identification of new DNA lesions induced by one-electron photooxidation;** Zhenjiu Liu; Yinsheng Wang[*]; *University of California at Riverside, Riverside, CA*

TPF 161 **Study of the Covalent Binding between Estrogen Quinones and Oligodeoxynucleotides by Electrospray Mass Spectrometry;** Richard Z. Yang[*1]; Ercole L. Cavalieri[2]; Eleanor G. Rogan[2]; Michael L. Gross[1]; *[1]Washington Univ., St. Louis, MO; [2]University of Nebraska Medical Center, Omaha, NE*

TPF 162 **Towards multiplexed DNA libraries characterization by the use of MALDI-TOF-MS and PNA hybridization;** Guerasimova[*1]; Bauer[1]; Steinfath[1]; Thamm[1]; Lehrach[1]; Radelof[2]; *[1]Max Planck Insitute, Berlin, Germany; [2]Deutsches Ressourcenzentrum GmbH, Berlin, Germany*

TPF 163 **Characterization of Bulge-Specific DNA Cleaver by Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry;** Po-Jui Chen; Sung-Fang Chen; Yu-Ju Chen[*]; *Institute of Chemistry, Academia Sinica, Taipei, Taiwan*

TPF 164 **Dehydration of an Oligonucleotide Containing Hydroxy-1,N^2-Propano-2'-Deoxyguanosine During Electrospray and Matrix Assisted Laser Desorption Ionization;** Robert A. Rieger; Charles R. Iden[*]; *State University of New York at Stony Brook, Stony Brook, N.Y.*

TPF 165 **Fragmentation of 5-formyluracil-containing Oligodeoxynucleotides---The importance of proton affinity on fragmentation;** Yinsheng Wang[*]; Lijie Men; *Department of Chemistry, University of California at Riverside, Riverside, CA*

TPF 166 **LC-MS analysis of therapeutic and diagnostic oligonucleotides;** Martin Gilar[*]; Kenneth J. Fountain; John C. Gebler; *Waters Corporation, Milford, Massachusetts*

TPF 167 **Analysis and Purification of Oligonucleotides Using High-Performance Liquid Chromatography-Electrospray Ion Trap Mass Spectrometry;** Kisaburo Deguchi[1]; Masako Ishikawa[1]; Takefumi Yokokura[1]; Izumi Ogata[3]; Shinya Ito[3]; Tadao Mimura[3]; Chad M. Ostrander[*2]; Steven T. Fannin[2]; Peter B. Grosshans[2]; *[1]Naka Customer Center, Hitachi Science Systems Co., Hitachinaka, Japan; [2]Hitachi High Technologies America, San Jose, California; [3]Design & Manufacturing Group, Hitachi High Technologies Co., Hitachinaka, Japan*

TPF 168 **Analysis of single nucleotide polymorphisms using a Q-TOF mass spectrometer;** Warees T. Muhammad[1]; Karen F. Fox[1]; Alvin Fox[*1]; William Cotham[2]; Michael Walla[2]; *[1]University of South Carolina School of Medicine, Columbia, SC; [2]University of South Carolina, Columbia, SC*

TUESDAY POSTERS
Macromolecular Complexes

TPG 169 **Cross-Linking Studies to Determine Viral Capsid Protein Interactions;** Jason Lanman*; Peter E. Prevelige Jr; *University of Alabama, Birmingham, AL*

TPG 170 **A Highly Efficient Approach for Proteomic Study of Protein Complexes;** Georgia Dolios; Dora Dias; Zhen-Qiang Pan; Rong Wang*; *The Mount Sinai School of Medicine, New York, New York*

TPG 171 **Hydrogen/Deuterium Exchange MALDI Studies into the Molecular Structure of Polymeric Actin;** John K. Chik*; David C. Schriemer; *University of Calgary, Dept. of Biochemistry and Molecular Biology, Calgary, Canada*

TPG 172 **Protein-ligand Complexes: Binding Sites and Protein Conformation;** Sharon J. Shields*; Rod L. Balhorn; *Lawrence Livermore National Laboratory, Livermore, CA*

TPG 173 **ESI-MS of Serine Protease-Inhibitor Complexes: A Site-Directed Mutagenesis Study;** Amanda L Doherty-Kirby; Gilles A Lajoie*; *University of Western Ontario, London, Ontario, Canada*

TPG 174 **A structure for the yeast Prohibitin complex: stuctural prediction and evidence from chemical crosslinking;** J W Back[1]; M Artal Sanz[2]; L J de Koning[1]; A O Muijsers[1]; H van der Spek[2]; L de Jong*[1]; C de Koster[1]; *[1]University of Amsterdam SILS Mass Spectrometry, Amsterdam, Netherlands; [2]University of Amsterdam SILS Molecular Biology, Amsterdam, Netherlands*

TPG 175 **Extending the Applications of LDI-MS and ESI-MS to Include Air-Sensitive Inorganic Complexes;** R. Benjamin Jones[1]; Kari B. Green-Church*[1]; Brian D. Pate[2]; Matthew J. Byrnes[2]; Malcolm H. Chisholm[2]; *[1]Campus Chemical Instrument Center, The Ohio State University, Columbus, OH; [2]Department of Chemistry, The Ohio State University, Columbus, OH*

TPG 176 **Fast Topological Analysis of ATP Synthase Supramolecular Complex by MALDI Mass Spectrometry and Hydrogen/Deuterium Exchange;** Jean-Marie Schmitter*[1]; Alexis Nazabal[1]; Jacques Vaillier[2]; Stéphane Chaignepain[2]; Jean Velours[2]; *[1]European Institute of Chemistry and Biology, Pessac, France; [2]Institut de Biologie et Génétique Cellulaires, Bordeaux, France*

TPG 177 **Epitope characterization of the Cytosolic APP(723-767) with mAb using Mass Spectrometric Epitope Excision and Extraction;** Erika R Amstalden; Markus Kohlmann; Roxana Cecal; Xiodan Tian; Michael Przybylski*; *Department of Chemistry, Analytical Chemistry, University of Konstanz, Konstanz, Germany*

TPG 178 **Synthesis, Affinity Characterization and Mass Spectrometric Identification of a Camel Micro-Antibody;** Andreas G Marquardt; Michael Przybylski*; *Departement of Chemistry, Analytical Chemistry, University of Konstanz, 78457 Konstanz, Germany*

TUESDAY POSTERS
Drug Metabolism - Quantitation

TPH 179 **Development of a LC/MS/MS Assay for the Quantification of LY404039 in Rat, Monkey, and Gravid Rabbit Plasma;** Emily G. Farrow*; Elizabeth M. Verburg; Nagy A. Farid; Rangaraj Narayanan; Michael C. Spence; Enaksha R. Wickremsinhe; Kenneth J. Ruterbories; *Eli Lilly & Company, Indianapolis, IN*

TPH 180 **Simultaneous Determination of Pioglitazone and Its Two Active Metabolites in Human Plasma by LC-MS/MS;** Zhongping John Lin*[1]; Weihua Ji[1]; Linyee Shum[1]; Dasksha Desai-Krieger[2]; *[1]Avantix Laboratories, Inc., New Castle, Delaware; [2]Johnson and Johnson Pharmaceutical Research and Development, Spring House, Pennsylvania*

TPH 181 **Automated Nanoelectrospray Mass Spectrometry from a Silicon Chip : a Promising Technique for Quantitative Determination of Small Molecules in Biological Fluids;** Jean-Marie Dethy*[1]; Claude Delatour[1]; Bradley Ackermann[2]; Gary Schultz[3]; Jack Henion[3]; *[1]Lilly development Center, Mont-Saint-Guibert, Belgium; [2]Lilly Research Laboratories, Indianapolis, IN, (USA); [3]Advion BioSciences Inc., Ithaca, NY,(USA)*

TPH 182 **An Automated and Sensitive Method for the Determination of a Merck Compound I in Human Plasma with Turbulent-Flow Liquid Chromatography and Tandem Mass Spectrometry;** Amy Qiu Wang; Wei Zeng; Donald G. Musson; Alison L. Fisher*; *Drug Metabolism Department, Merck & Co. Inc., West Point, PA*

TPH 183 **Improvements in sensitivity and S/B offered by ESI-FAIMS-MS over ESI-MS and ESI-MS MRM;** Barbara Ells*; Randy W. Purves; Roger Guevremont; David A. Barnett; *Ionalytics Corporation, Ottawa, Canada*

TPH 184 **LC-14C-MS/MS: Compatibility of Capillary HPLC with 14C-Detection and Mass Spectrometry;** Mark Breyer[1]; Kerstin Hucke[2]; Karl Schmeer*[1]; Peter Földi[2]; *[1]Bayer AG, D-42096 Wuppertal, Germany; [2]Fachhochschule Niederrhein, D-47798 Krefeld, Germany*

TPH 185 **Comparing SFC- and HPLC- MS/MS for Quantitation of Cytochrome P450 Probe Substrate Metabolites;** C. Michelle Dunaway*[1]; Dong Wen[1]; J. David Pinkston[2]; Amy M. Walter[1]; David C. Ackley[1]; Timothy R. Baker[1]; *[1]Procter & Gamble Pharmaceuticals, Mason, OH; [2]Procter & Gamble, Cincinnati, OH*

TPH 186 **Normal phase-LC/MS/MS quantitation of a derivitized thromboxane in biological sample using negative electron capture APCI;** Hideji Fujiwara*[1]; Jerry Muhammad[1]; Kevin L. Duffin[1]; Maurizio Splendore[2]; Maan Amad[2]; Rohan Thakur[2]; *[1]Pharmacia Co., Chesterfield, Missouri; [2]ThermoFinnigan, San Jose, California*

TPH 187 **Liquid chromatography-tandem mass spectrometry analysis of Ondansetron in maternal plasma, coelomic fluid, amniotic fluid and fetal tissue;** April S.Y. Wong*; Perpetua E. Tan; Matthew Chan; Tony Gin; *Department of Anaesthesia & ICU, Chinese University of Hong Kong, Shatin, N.T., Hong Kong*

TPH 188 **Rapid screening method for simultaneous detection of thirty drugs of abuse in race horse urine using LC/MS^n technology;** Wayne S. Skinner; Daniel M. McKemie; Scott D. Stanley*; *UC Davis, Davis, California, USA*

TPH 189 **Assay Development for Detection and Quantitation of Fatty Acid Acyl Conjugates of Hydrocortisone by Gas Chromatography-Electron Capture Negative Ion (ECNI) Mass Spectrometry;** Walter C. Hubbard*; Carol Bickel; Robert P. Schleimer; *Johns Hopkins University School of Medicine, Baltimore, Maryland*

TPH 190 **Determination of Ramipril and Ramiprilat in Human EDTA Plasma by HPLC using Mass Spectrometry Detection;** Jean Couture*; François Vallée; Sylvain Lachance; *Anapharm Inc., Sainte-Foy, Québec, Canada*

TPH 191 **Enhance the Detection Sensitivity of Poly-halogenated Urea in Rat Plasma in the Quantitative LC-APCI/MS/MS Analysis;** Liang Tang*; Xiaoqi Chen; Sylvia Wong; *Tularik Inc., South San Francisco, California*

TPH 192 **Extending the MS Dynamic Range for the Quantitaion of Small Molecule Drugs By Employing a Lower Abundance Natural Isotope Mass;** Eric Yang*; John Kratz; Sherry Wang; Feng Li; *GlaxoSmithkline Pharmaceuticals, King of Prussia, PA*

TPH 193 **A Super-fast LC-MS/MS Method for Simultaneous Determination of Nicotinic Acid and Five Metabolites in Human Urine/Plasma Using Normal Phase Silica Column;** Yu-Luan Chen*; Heiko Junga; Xiangyu Jiang; Naidong Weng; *Covance Lab, Madison, WI, USA*

TPH 194 **Strategy for 21 CFR Part 11 compliance of data generated by LC/MS/MS systems for FDA submission -- Time-Response Image and Storage;** Duxi Zhang*; Dara Hawthorne; Tony O'Sullivan; Mark E. Arnold; Jane Gale; *Bristol-Myers Squibb, New Brunswick, NJ*

TPH 195 **Biomarker Quantitation of LTB4 in Human EDTA Plasma by LC-MS/MS and Anion Exchange Chromatography;** Erica J. Carnes*; Kirk E. Newland; Chris J. Sartwell; Patrick Lin; Jean W. Lee; *MDS Pharma Services, Lincoln, NE*

TPH 196 **Simple, Rapid, and Sensitive LC/MS/MS Method for the Determination of Diazepam and Its Major Metabolites in Rat Cerebrospinal Fluid;** Junying Wang*; Xiaolan Shen; James V. Pivnichny; Patrick R. Griffin; Judy Fenyk-Melody; Xinchun Tong; *Merck & Co., Inc., Rahway, New Jersey*

TPH 197 **Determination of Allopurinol and Oxypurinol in Human Plasma by LC/MS/MS;** Reza Khosravan[1]; Darcy J Mulford[1]; Bruno Ndzi[2]; Sylvain Ferron[2]; Lana Rodenheiser[2]; John R Simpson*[2]; Francis Beaudry[2]; *[1]MDS Pharma Services, Montreal, Canada; [2]TAP Pharmaceutical Products Inc., Lake Forest, IL.*

TPH 198 **Ion Suppression Issues in the LC/MS Analysis of Analytes Isolated from Human and Animal Matricies;** Michael J Avery*; *Pfizer, INC, Groton, CT*

TPH 199 **High Sensitivity Electrospray and APCI Application of the High Resolution TSQ Quantum in the Quantitation of Cabergoline and Pergolide in Plasma;** Nicola Hughes*[1]; Ma'an Amad[2]; Maurizio Splendore[2]; Witold Winnik[3]; Gary Paul[3]; *[1]Biovail Contract Research, Toronto, Canada; [2]ThermoFinnigan Corporation, San Jose, CA; [3]ThermoFinnigan Corporation, Piscataway, NJ*

TPH 200 **Characterization of Matrix Suppression Effect in Quantitative LC/MS/MS Analysis of Biological Samples;** Shaolian Zhou*; Mike L Larson; Naidong Weng; Xiangyu Jiang; *Covance Laboratories Inc., Madison, Wisconsin*

TPH 201 **A New Liquid Chromatography-Tendem Mass Spectrometry Method (0.1-1,000 ng/mL) for Quantitation of Paclitaxel in Human and Rat Plasma;** Dawei Zhou; Guangchun Zhou; Mei Huo; Jinn Wu; Zhe-ming Gu*; *XenoBiotic Laboratories, Inc., Plainsboro, New Jersey*

TPH 202 **Method Validation for the Simultaneous HPLC/MS/MS Quantitation of Midazolam and 1-Hydroxymidazolam in Human Plasma;** Shane R Needham*; Binying Ye; *Alturas Analytics, Inc., Moscow, ID*

TPH 203 **A High Performance Liquid Chromatography- Mass Spectrometry Assay for Urinary Glucocorticoids and Their Metabolites;** Yong-min Li*[1]; Liat Yaniv[2]; Ze'ev Hochberg[2]; Alfred L Yergey[1]; *[1]Section on Mass Spectrometry and Metabolism, LCMB/NICHD/NIH, Bethesda, Maryland; [2]PREB/NICHD/NIH, Bethesda, Maryland*

TPH 204 **Determination of the novel PDE 5 inhibitor Vardenafil and two metabolites in plasma by Reversed Phase-LC-MS/MS and Turbulent Flow Chromatography-MS/MS;** Dieter Zimmer*; Christoph Müller; *Bayer AG, Preclinical Pharmacokinetics, Wuppertal, Germany*

TPH 205 **A New Approach to Fast Solid Phase Extraction Method Development for High-throughput Off-line Sample Preparation Using Prospekt-II System;** Daniel Tang*; Pace Gerry; Olga Kavetskaia; *Pfizer Pharmaceuticals Inc., Ann Arbor, MI*

TPH 206 **A 96-Well Solid Phase Extraction LC-MS/MS Method for the Quantitative Determination of H-1 Glucuronide Metabolite of Dexmeditomidine in Human Plasma;** Qin C. Ji*; R. John Gonzales; Min S. Chang; Gary Rotert; Tawakol A. El-Shourbagy; *Abbott Laboratories, Abbott Park, IL*

TPH 207 **Analysis of benzodiazepines from whole blood by solid phase microextraction coupled to LC/MS/MS;** Russell P Grant*[1]; Bev Incledon[1]; Heather Lord[2]; Janusz Pawliszyn[2]; *[1]Eli Lilly Canada,, Toronto, On, Canada; [2]Department of Chemistry, University of Waterloo, Waterloo, On, Canada*

TPH 208 **Novel Direct Detection Method for Quantitative Determination of Intracellular Nucleoside Triphosphates;** Guoen Shi*; Jing-tao Wu; Steve Unger; *Bristol_Myers Squibb Company, Wilmington, DE*

TPH 209 **Identification and Quantitation of Ginkgolides and Bilobalides in Chinese Herbal Medicines;** Tabisam Khan*[1]; Gordon Kearney[1]; Amir Farooq[1]; Sheng Long-Sheng[2]; *[1]Micromass UK Limited, , Wythenshawe, Manchester, United Kingdom; [2]Chinese Pharmaceutical Company, Nanjing, China*

TPH 210 **Simultaneous determination of a drug candidate and its metabolite in human plasma by direct-injection LC/MS/MS with increased separation capability;** Yan Mao; P. Jane Gale*; Mike Huang; Mohammed Jemal; Mark L. Powell; *Bristol-Myers Squibb, New Brunswick, NJ*

TPH 211 **Bioanalysis of Tamoxifen and N-Desmethyl Tamoxifen in Human EDTA Plasma using LC/MS/MS and Switching Valve;** Jean Couture*; François Vallée; Patrice Arcand; *Anapharm Inc., Sainte-Foy, Québec, Canada*

TPH 212 **Quantitative Investigation of Anti-cancer Agent SR271425 and its Metabolites Using HPLC / ES / MS;** (Peter) Chang-nan Chen*[1]; Venugopal Marasanapalle[2]; Patrick R. Jones[1]; Bhaskara R. Jasti[2]; O. David Sparkman[1]; *[1]Chemistry Department, University of the Pacific, Stockton, California; [2]School of Pharmacy, University of the Pacific, Stockton, California*

TPH 213 **Quantitation of Drug Metabolites by HPLC coupled with Nitrogen Chemiluminescence Detector and Mass Spectrometer in the Absence of Pure Metabolite Standards;** Yuzhong Deng*[1]; Jing-Tao Wu[2]; Hongwei Zhang[1]; Hang Zeng[1]; Timothy V. Olah[1]; *[1]Bristol-Myers Squibb Company, Wilmington, DE; [2]Millennium Pharmaceuticals Inc., Cambridge, MA*

TPH 214 **Enhancing Signal Response of Neutral Steroidal Compounds in Mass Spectrometric Analysis in Electrospray Ionization Mode;** Ashok Marwah; Padma Marwah; Henry Lardy*; *University of Wisconsin, Madison, WI*

TPH 215 **Quantitative Determination of Fenofibric Acid in Human Plasma by Liquid-Liquid Cartridge Extraction and LC/MS/MS;** Amy Y. Yang*; John D. Rogers; Jamie J. Zhao; *Merck & Co., Inc., West Point, PA*

TPH 216 **Determination of Zolpidem in Human EDTA Plasma by LC/MS/MS;** Jean Couture*; François Vallée; Isabelle Jobin; *Anapharm Inc., Sainte-Foy, Québec, Canada*

TPH 217 **Quantitative determination of the unchanged form of BMS-275291 (a sulfhydryl drug candidate) and its epimer metabolite in human plasma by direct-injection LC/MS/MS;** Mike-Qingtao Huang*; Yan Mao; Daisy Whigan; Mohammed Jemal; *Bristol-Myers Squibb, New Brunswick, NJ*

TPH 218 **Further Performance Improvement In The High Throughput LC-MS/MS Bioanalysis;** Xinping Fang*; Ming Wang; Ann Zhu; Richard Badger; Kevin Cook; Danlin Wu; *Purdue Pharma L.P., Ardsley, NY*

TPH 219 **A Quantitative Liquid Chromatography Mass Spectrometry Mass Spectrometry (LC/MS/MS) Method for the Determination of Rimcazole in Support of Experimental Pharmacokinetic Studies;** Angela Hayes*; Bernard P Nutley; Florence I Raynaud; Suzanne A Eccles; Gary M Box; *Institute of Cancer Research, Sutton, United Kingdom*

TPH 220 **Quantitation of Azithromycin in Human Plasma via HPLC with MS/MS Detection;** Jing Ke; Jennifer Lewis; Bruce J. Hidy*; *PPD Development, Richmond, Virginia*

TPH 221 **Matrix Suppression Resolved Using Fast Dual-Column LC/MS/MS in the Bioanalysis of Nicotine/Cotinine in Human Heparinized Plasma;** Wei Sun*; Roger Coe; Patrick Lin; Jean W. Lee; *MDS Pharma Services, Lincoln, Nebraska*

TPH 222 **Analysis of Homocysteine in Human Blood using Gas Chromatography/Mass Spectrometry;** Jeongae Lee*[1]; Bong Chul Chung[1]; Nathalie Bergeron[2]; Rinda Shoong[2]; Michael Wen[2]; Jean-Marc Schwarz[2]; *[1]Korea Institute of Science and Technology, Seoul, Korea; [2]University of California ar Berkeley, Berkeley, California, USA*

TPH 223 **Simultaneously Determination of R and S Enantiomers of Drug A and Their Corresponding S- and R-Prodrug B in Rat Whole Blood by Chiral LC-MS/MS Method;** Mei-Yi Zhang*; Edward Kerns; Terry Andree; Jennifer Karkas; Christina Kraml; Oliver McConnell; *Wyeth Research, Princeton, NJ*

TPH 224 **Measurement of Caffeine and five of it's major metabolites in Urine by HPLC - Tandem Mass Spectrometry;** Allan Weimann; Henrik E. Poulsen*; *Rigshospitalet, Dept. of Clinical Pharmacology., Copenhagen, Denmark*

TPH 225 **Quantitative analysis of hexamethylene bisacetamide (HMBA) and metabolites in the differentiation process of MEL cell culture in presence and absence of APAH, a potential inhibitor of N^8-acetylspermidine by APCI (+)-LR-SIM-MS method;** Jing Yuan*; Min Jiang; Xiaoyi Hu; Vanishree Rajagopalan; Jim Blankenship; David Fries; O. David Sparkman; Patrick R. Jones; *University of the Pacific, Stockton, CA*

TPH 226 **A Rapid and Specific HPLC/MS/MS Method for the Determination of Tizanidine in Human EDTA Plasma;** Jean Couture*; François Vallée; Nadia Smith; *Anapharm Inc., Sainte-Foy, Québec, Canada*

TPH 227 **Quantitative Determination of Nucleoside Analogs in Rat Plasma by Liquid Chromatography with Tandem Mass Spectrometry using Stable Isotopes Internal Standards;** Li-Tain Yeh*; Dahai Dong; David Lourenco; Chin-Chung Lin; *ICN Pharmaceuticals, Inc., Costa Mesa, CA*

TUESDAY POSTERS
Lipids

TPI 228 **Cell Map Metabolomics Focused on Phospholipid by ESI/MS;** Ryo Taguchi*; Toshiaki Hojou; Masayoshi Imagawa; *Faculty of Pharmaceutical Sciences, Nagoya City University, Nagoya, Japan*

TPI 229 **Charting Molecular Heterogeneity of Glycerophospholipids by Fatty Acid Scanning on a Quadrupole Time-of-Flight Mass Spectrometer;** Kim Ekroos; Kai Simons; Andrej Shevchenko*; *Max Planck Institute of Molecular Cell Biology and Genetics, Dresden, Germany*

TPI 230 **Steroid Autooxidation: On-Column Electrochemistry Can Accompany the Electrospray Process;** Suya Liu*; Jan Sjoväll; William J Griffiths; *Karolinska Institutet, Stockholm, Sweden*

TPI 231 **A study of peptide-lipid interactions using MALDI Ion Mobility/o-TOFMS;** Michael Ugarov*[1]; Katrin Fuhrer[1]; Marc Gonin[1]; Kent Gillig[1]; J. Albert Schultz[1]; Amina S. Woods[2]; *[1]Ionwerks, Inc., Houston, TX; [2]NIDA IRP, NIH, Baltimore, MD*

TPI 232 **Matrix-assisted laser desorption ionization time-of-flight mass spectrometry of lipids: Ionization and prompt fragmentation patterns;** Khalid A Al-Saad; Vladimir Zabrouskov; William F Siems; N. Richard Knowles; Richard M Hannan; Herbert H Hill, Jr.*; *Washington State University, Pullman, WA*

TPI 233 **A Fully Automated HPLC/API-MS Single Quadrupole Method for the Analysis of Fatty Acids in Tissue Samples;** Bhasha Desai*; John E. Hughes; Kathleen I. MacKenzie; *GlaxoSmithKline, Research Triangle Park, NC*

TPI 234 **A Systematic Study of Saponification of Leukotriene A4 (LTA4) Methyl Ester to LTA4 Acid;** Cynthia Sun; Jih-Lie Tseng*; William Guilford; Amy Liang; Jun Shen; John F. Parkinson; Babu Subramanyam; *Berlex Biosciences, Richmond, CA*

TPI 235 **Detection of Novel Oxidized Phospholipid Products by Neutral Loss Scanning;** Melissa K. Pulfer*; Robert C. Murphy; *National Jewish Medical and Research Center, Denver, CO*

TPI 236 **Characterization of arachidonic acid nitration by nitrogen dioxide (NO_2);** Jordi F López*; Michael Balazy; *New York Medical College, Valhalla, NY*

TPI 237 **Myeloperoxidase Is a Major Source of Eicosanoids at Sites of Inflammation: Use of Myeloperoxidase-generated Lipid Oxidation Products as Predictors of Coronary Artery Disease Risk;** Liang R. Zhang; Marie L. Brennan; Eric J. Topol; Stanley L. Hazen*; *Cleveland Clinic Foundation, Cleveland, Ohio*

TPI 238 **Detection and Characterisation by Mass Spectrometry of Radical Adducts Produced from Fenton Oxidation Reaction of Unsaturated Fatty Acids;** Maria do Rosário Domingues*; Pedro Domingues; Francisco M.L. Amado; António J. Ferrer-Correia; *Chem Dpt, University of Aveiro, Aveiro, Portugal*

TPI 239 **Characterization of membrane lipids of dense core vesicles from rabbit brain;** Mark J. Panepinto; Eric A. Berg*; Mark E. McComb; Richard E. Fine; Catherine E. Costello; *Boston University School of Medicine, Boston, MA*

TPI 240 **Acetonitrile Chemical Ionization Tandem Mass Spectrometry for the Identification of Trans and Conjugated Fatty Acid Methyl Ester Isomers in Butters;** Anthony L. Michaud; B. A. Corl; D. E. Bauman; J. Thomas Brenna*; *Cornell University, Ithaca, NY*

TPI 241 **Investigation of Fatty Acid Oxidation by LDI-TOF Mass Spectrometry Using Carbon-Sputtered Plate;** Soo-Bong Heo; Hie-Joon Kim*; *Seoul National University, Seoul, Korea*

TPI 242 **Detection of *Listeria Species* Using Cell Membrane Profiles;** Jeannette D. Karczmarski*[1]; Petra Miketova[2]; Jarmila Vytrasova[3]; Karl H. Schram[4]; Ida M. (Ki) Moore[2]; M. Bonner Denton[1]; *[1]Department of Chemistry, University of Arizona, Tucson, AZ; [2]College of Nursing, University of Arizona, Tucson, AZ; [3]Department of Biology and Biochemistry, University of Pardubice, Pardubice, Czech Republic; [4]College of Pharmacy, University of Arizona, Tucson, AZ*

TPI 243 **A direct electrospray tandem method for analysis of dipalmitoyl phosphatidyl choline in lung lipid extracts;** Bassem I Ziadeh; Angela-Chueh Chao; J. Thomas Brenna*; *Cornell University, Ithaca, USA*

TPI 244 **Analysis of Isomeric Hydroxy Long Chain Fatty Acids by ESI-MS/MS: Application to the Diagnosis of LCHAD;** David W Johnson*; Minh-Uyen Trinh; *Women's and Children's Hospital, North Adelaide, Australia*

TPI 245 **Analysis of C18 Fatty Acyl Glycerols by Ag^+ Coordination Tandem Mass Spectrometry;** Philip J Kingsley; Lawerence J Marnett*; *Vanderbilt University School of Medicine, Nashville, TN*

TPI 246 **Isolation and Identification of Leukotriene B_4 Metabolites in Monkey Urine;** Karin A. Zemski-Berry*[2]; Robert C. Murphy[2]; Jason D. Morrow[1]; Richard N. Pierson[1]; *[1]National Jewish Medical and Research Center, Denver, CO; [2]Vanderbilt University Medical Center, Nashville, TN*

TPI 247 **LC-MS/MS of Endogenous and Synthetic Sphingolipids;** Sarah E. Trotman*[1]; Holly E. Symolon[1]; M. Cameron Sullards[2]; David C. Menaldino[1]; Dennis C. Liotta[1]; Alfred H. Merrill[2]; *[1]Emory University, Atlanta, Georgia; [2]Georgia Institute of Technology, Atlanta, Georgia*

TPI 248 **Phytosterol analysis and characterization in spelt (Triticum aestivum ssp. spelta L.) and wheat (T. aestivum L.) lipids by LC/APCI-MS;** Raoul Rozenberg*[1]; Nike L. Ruibal-Mendieta[1]; Geraldine Petitjean[1]; Dominique L. Delacroix[2]; Nathalie M. Delzenne[1]; Jean-Louis Habib-Jiwan[1]; Marc Meurens[1]; Joelle Quetin-Leclercq[1]; *[1]Universite Catholique de Louvain, Louvain-la-Neuve, Belgium; [2]Moulin de Hollange, Fauvillers, Belgium*

TPI 249 **Novel method for mapping and sequencing of gangliosides by capillary electrophoresis/electrospray ionization quadrupole time-of-flight tandem mass spectrometry;** Alina Zamfir*[1]; Zeljka Vukelic[2]; Jasna Peter-Katalinic[1]; *[1]Institute for Medical Physics and Biophysics, Muenster, Germany; [2]Faculty of Medicine, University of Zagreb, Zagreb, Croatia*

TPI 250 **Screening of bacterial lipid libraries by MALDI-TOF PSD and MALDI-QTOF CID;** Anke I. Beckedorf[1]; Marko Jovanovic[1]; Werner Fischer[2]; Christina Schaeffer[3]; Paul Messner[3]; Jasna Peter-Katalinic*[1]; *[1]Institute for Medical Physics and Biophysics, Muenster, Germany; [2]Institute for Biochemistry, Erlangen-Nuernberg, Germany; [3]Zentrum fuer Ultrastrukturforschung, Universitaet fuer Bodenkultur, Vienna, Austria*

TPI 251 **Mass Spectrometric Analysis of Leukotriene A_4 and Other Reactive Eicosanoids;** Jennifer S Dickinson*; Robert C Murphy; *National Jewish Medical and Research Center, Denver, CO*

TPI 252 **Study of Odd Numbered Acyl Moiety Accumulation in 3T3-L1 Cells during Differentiation with EI/MS and ESI/MS/MS;** Xiong Su; Xianlin Han; Richard W. Gross*; *Washington University, St. Louis, MO*

TPI 253 **Identification and Quantitation of Complex Mixtures of Sphingolipids by LC-MS/MS;** M. Cameron Sullards*; Alfred H. Merrill; Elaine Wang; *Georgia Institute of Technology, Atlanta, GA*

TPI 254 **Novel Structure Characterization of Glycerophosphocholines by Tandem Mass Spectrometry;** Yen-Peng Ho*; Ping-Chen Huang; *National Dong Hwa University, Dept. of Chem., Hualien, Taiwan, ROC*

TPI 255 **Formation of Genotoxic Bifunctional Electrophiles from Arachidonic Acid Hydroperoxides;** Michelle V Williams*; Seon Hwa Lee; Tomoyuki Oe; Ian A Blair; *University of Pennsylvania, Philadelphia, PA*

TPI 256 **Analysis of Fumonisins and Modified Fumonisins by Liquid Chromatography Tandam Mass Spectrometry (LC-MS/MS);** Jeremy C. Allegood*; M. C. Sullards; Elaine Wang; Alfred H. Merrill; *Georgia Institute of Technology, Atlanta, GA*

TPI 257 **Collision Induced Dissociation (CID) Mass Spectra of Membrane Lipids Using Nanospray Ionization MS/MS Techniques;** Robert A. Rieger*; Sajesh Parathath; David L. Williams; Charles R. Iden; *State University of New York at Stony Brook, Stony Brook, N.Y.*

TPI 258 **Structural Characterization of Oxidized Phospholipids that Activate $PPAR_\alpha$ and Increase Monocyte Chemotactic Factors in Endothelial Cells;** Ganesamoorthy Subbanagounder*; Jason W. Wong; Hans Lee; Kym F. Faull; Alek N. Dooley; Judith A. Berliner; *University of California, Los Angeles, CA, USA*

TPI 259 **Separation and Quantitation of Phosphatidylcholine and Sphingomyeline Molecular Species from Brain Extracts Using Micro Capillary Liquid Chromatography Electrospray Ionization Mass Spectrometry;** Giorgis Isaac; Dan Bylund; Jonas Bergquist; Karin E Markides*; *Department of Analytical Chemistry, Uppsala University, Uppsala, Sweden*

TPI 260 **5-Oxo-Eicosatetraenoic Acid Production in the Lung Homogenates from Human Subjects with Various Disease States;** Rebecca C. Bowers*[1]; Norbert F. Voelkel[2]; Robert C. Murphy[1]; *[1]National Jewish Medical and Research Center, Denver, CO; [2]University of Colorado Health Sciences Center, Denver, CO*

TPI 261 **Measurement of Cerebroside Sulfate Activator Activity by Multiple Reaction Monitoring;** Andrew J. Norris[1]; Julian P. Whitelegge*[2]; Tatsushi Toyokuni[1]; Claire Fluharty[3]; Arvan Fluharty[3]; Kym F. Faull[2]; *[1]The Department of Molecular & Medical Pharmacology, UCLA, Los Angeles, California; [2]The Pasarow Mass*

Spectrometry Laboratory, UCLA, Los Angeles, California; [3]Department of Psychiatry & Biobehavioral Sciences, UCLA, Los Angeles, California

TUESDAY POSTERS
Environmental Analysis

TPJ 262 **Analysis of Co-PCBs in Food using Automated Column Chromatography wIth HRGC/HRMS;** Dongmi Choi*; Soojung Hu; Junghyuck Suh; Kyungpoong Won; Changmin Kim; *Korea Food & Drug Administration, Seoul, Korea*

TPJ 263 **Isotope-Coded Affinity Tags and LC/MS for the Study of Human Hepatoma Cytochrome P450 Isozyme Response to 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin Exposure;** Denise K. MacMillan*[1]; Agnes M. Hindemith[2]; Annabel L. Z. Major[1]; Laura S. Inouye[3]; *[1]Environmental Chemistry Br., Engineer Res. & Dev. Center, USACE, Omaha, NE; [2]VA Medical Center, Omaha, NE; [3]Environmental Risk Assess. Br., Engineer Res. & Dev. Center, USACE, Vicksburg, MS*

TPJ 264 **Improved Detection of Organophosphate Pesticides in EI GC/MS/MS with Higher Damping Gas Pressure;** Jessie C. Butler*; Scott Quarmby; John Ragsdale; Meredith Conoley; *ThermoFinnigan, Austin, Texas*

TPJ 265 **Screening of Microcystins in Water Samples Using Negative-Ion Mode Electrospray Ionization Mass Spectrometry;** Cariton Kubwabo*; Rocio Aranda-Rodriguez; Frank M. Benoit; *Heath Canada, Ottawa, Canada*

TPJ 266 **Development of an Electrospray Mass Spectrometric Database of Chemical Warfare Agents;** Paul A. D'Agostino*; Claude L. Chenier; James R. Hancock; *Defence Research Establishment Suffield, Medicine Hat, Canada*

TPJ 267 **Rapid Characterization and Differentiation of Yeast Strains by Py-MAB-TOF Analysis;** Pascal Martin*[1]; Sylvie Beaudet[1]; Michel J. Bertrand[2]; *[1]University of Montreal, Montreal, Qc, Canada; [2]Dephy Technologies, Montreal, Qc, Canada*

TPJ 268 **Determination of Quinolone and Fluoroquinolone Antibiotics in Aquatic Environment by Na_2EDTA-Assisted Solid-Phase Extraction and Electrospray LC-MS/MS;** Xiu-Sheng Miao*; Chris D. Metcalfe; *Water Quality Centre, Trent University, Peterborough, Ontario, Canada*

TPJ 269 **Real-Time Monitoring of Hazardous Airborne Chemicals: The Styrene Investigation;** Nicholas S. Karellas; Qing F. Chen; Gary B. De Brou; Rebecca K. Milburn*; *Ontario Ministry of the Environment, Toronto, Canada*

TPJ 270 **Survey of PAH and Heavy Metal Levels in Soils from Defunct Municipal Incinerators;** Michelle Gilliam; Van Quach; Alicia Williams; Chris Gonzalez; Howard W Mielke; Qiang Zhang; Guangdi Wang*; *Xavier University of Louisiana, New Orleans, LA*

TPJ 271 **GC-MS study of the pollution of the North Caspian sea with organic compounds;** Olga V. Poliakova; Marina N. Repina; Albert T. Lebedev*; *Moscow State University, Moscow, Russia*

TPJ 272 **Detection of Poly-Chlorinated Pesticides in Water Using Negative Ion Chemical Ionization with Membrane Introduction Mass Spectrometry;** Thomas A. Blake[1]; Xubin Zheng[1]; Tenna Aggerholm[2]; Frants R. Lauritsen[2]; R. Graham Cooks*[1]; *[1]Dept of Chemistry,Purdue University, West Lafayette, Indiana; [2]Dept of Biochemistry and Molecular Biology,Univ of Southern Denmark, Odense, Denmark*

TPJ 273 **Real-Time Physical and Chemical Characterization of Particulate Matter from a Combustion Source;** Richard F Reich*[1]; Howard T Mayfield[2]; Paul Nam[3]; Hongyu Shen[3]; *[1]AFRL/PRTS, Wright-Patterson AFB, Ohio; [2]AFRL/MLQL, Tyndall AFB, Florida; [3]University of Missouri-Rolla, Rolla, Missouri*

TPJ 274 **LC/APCI/MS/MS Determination of Ergosterol in a Prarie Natural Wetland;** John V. Headley; Kerry M. Peru*; Brij Verma; Richard D. Robarts; *Environment Canada, National Water Research Institute, Saskatoon, Canada*

TPJ 275 **Characterization of Coal by Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry;** Zhigang Wu*[1]; Sara Jernstrom[1]; Ryan P. Rodgers[2]; Alan G. Marshall[2]; *[1]National High Magnetic Field Laboratory, Florida State University, Tallahassee, Florida; [2]NHMFL, Dept. of Chemistry & Biochemistry, Florida State University, Tallahassee, Florida*

TPJ 276 **Tandem MS Determination of VX Fragmentation Pathways;** Dennis K. Rohrbaugh*; *U.S. Army Edgewood Chemical Biological Center, Aberdeen Proving Ground, MD*

TPJ 277 **Strain Differentiation and Determination of Capsid Proteins of Coxsackievirus by MALDI-MS;** Jody M. Talley*[1]; Jody A. Shoemaker[2]; G. Shay Fout[2]; *[1]Oakridge Institute for Science and Education, Oakridge, Tennessee; [2]U.S. Enviromental Protection Agency, Cincinnati, Ohio*

TPJ 278 **The Potential of Combining Ion Trap/MS/MS and TOF/MS for Identification of Emerging Contaminants;** Imma Ferrer*[1]; Edward T. Furlong[1]; Curt E. Heine[2]; E. Michael Thurman[3]; *[1]US Geological Survey, Denver, CO; [2]Micromass, Beverly, MA; [3]US Geological Survey, Lawrence, KS*

TPJ 279 **Biological monitoring of toluene diisocyanate (TDI) exposure by analysis of urine from exposed workers;** Christian H Lindh*; Carl-Johan Sennbro; Hans Welinder; Bo AG Jönsson; *Department of Occupational and Environmental Medicine, Lund, Sweden*

TPJ 280 **Evidence for Surface-Catalyzed Ionization in Electrospray LC/MS of Pesticides and Pharmaceuticals;** E. Michael Thurman*[1]; Imma Ferrer[2]; *[1]U.S. Geological Survey, Lawrence, Kansas; [2]U.S. Geological Survey, Denver, Colorado*

TPJ 281 **Determination of Alkylphenols in Oil, Gasoline and Diesel Samples Using LC/Electrochemistry/MS;** Georg Diehl*[1]; Uwe Karst[2]; *[1]Department of Chemistry / York University, Toronto, Canada; [2]Department of Chemical Analysis / University of Twente, Enschede, The Netherlands*

TPJ 282 **Characterization of Chlorinated Fatty Acids using ESI-MS and ESI-MS/MS;** Kate Stuttaford[1]; Mehran Alaee*[2]; John Carey[2]; Wenshan Zhuang[3]; *[1]University of Guelph, Guelph, Ontario, Canada; [2]National Water Research Institute, Burlington, Ontario, Canada; [3]University of Toronto, Toronto, Ontario, Canada*

TPJ 283 **Isolation and Characterization of Copper-complexing Ligands from Marine Waters;** Myrasol Bulaong*; Catherine Cogut; Richard Vachet; *University of Massachusetts, Amherst, Massachusetts*

TPJ 284 **Identification of Photocatalytic Degradation Products of Diazinon using GC/MS/MS and LC/MS with Quadrupole Time-of-flight Mass Spectrometry;** Vasilis N. Kouloumbos[1]; Despina F. Tsipi*[1]; Anastasia E. Hiskia[2]; Dejan Nikolic[3]; Richard B. van Breemen[3]; *[1]General Chemical State Laboratory, Athens, Greece; [2]Institute of Physical Chemistry NCSR "Demokritos",*

Athens, Greece; [3]University of Illinois at Chicago, Chicago, Illinois

TPJ 285 **Comparison of APCI and Electrospary LC-MS/MS Methods for the Quantitative Determination of Perfluorinated Organic Compounds;** Benjamin Lau*; Sheryl Tittlemier; *Food Research Division, Health Canada, Ottawa, Canada*

TPJ 286 **Identification of New Brominated Acids in Drinking Water;** Susan D. Richardson*[1]; Alfred D. Thruston, Jr.[1]; Bruce McKague[2]; Chaim Rav-Acha[3]; Victor Glezer[3]; *[1]U.S. Environmental Protection Agency, National Exposure Research Lab, Athens, GA; [2]University of Toronto, Toronto, Canada; [3]Israel Ministry of Health, Tel-Aviv, Israel*

TPJ 287 **Comparison Of ICP-MS With Two Uranium Measurement Methods For The Quality Assessment Program;** Ada Kong*; John Kada; Pamela Perry; *US DOE / Environmental Measurements Laboratory, New York, New York*

TPJ 288 **Toxicity Characteristic Leaching Procedure (TCLP) Sample Study with Fast GC/TOF-MS;** Chunyan Hao*[1]; Paul Yang[1]; Olivier Niquette[2]; Evaldo Dearmas[2]; Barry Ali[1]; Raymond Clement[1]; *[1]Laboratory Services Branch, Ministry of the Environment, Etobicoke, Canada; [2]LECO Corporation, St. Joseph, MI*

TPJ 289 **Optimization of Microbore HPLC-Constant Neutral Loss-Electrospray Mass Spectrometry for Nitrated Polycyclic Aromatic Hydrocarbons;** Tamika T. Williams; Helene Perreault*; *University of Manitoba, Winnipeg, Canada*

TUESDAY POSTERS
Antiterrorism MS

TPK 290 **Detection of aerosolized Bacillus spores using a high capacity air sampler coupled with AP-MALDI;** Angelo J. Madonna[1]; Kent J. Voorhees*[1]; Vladimir Doroshenko[2]; Nelli Taranenko[2]; Victor V. Laiko[2]; *[1]Colorado School of Mines, Golden, CO; [2]Mass Technologies, Baltimore, MD*

TPK 291 **Classification of Food Borne Pathogens by MALDI-MS and Nonlinear Chemometrics;** Peter de B. Harrington*[1]; Jon Rees[2]; Kent J. Voorhees[2]; *[1]Idaho National Engineering and Environmental Laboratory, Idaho Falls, ID; [2]Department of Chemistry and Geochemistry, Colorado School of Mines, Golden, CO*

TPK 292 **The Efficacy of Isolating and Detecting *Bacillus anthracis* from Numerous Mixtures Using Immunomagnetic Separation Coupled with MALDI-MS;** Jon C Rees[1]; Kent J. Voorhees*[1]; Ted L. Hadfield[2]; *[1]Colorado School of Mines, Golden, CO; [2]Armed Forces Institute of Pathology, Washington, DC*

TPK 293 **Identification of Nitrate Ester Explosives by Electrospray- and APCI-LC/MS/MS;** Xiaoming Zhao; Jehuda Yinon*; *National Center for Forensic Science, University of Central Florida, Orlando, Florida*

TPK 294 **Automated Characterization and Detection of Unknown Chemical Agents in Battlefield Environments Using a Ruggedized Ion Trap Mass Spectrometer;** Kevin J Hart*; Irene F. Robbins; Marcus B. Wise; Stephen A. Lammert; Wayne H. Griest; *Oak Ridge National Laboratory, Oak Ridge, TN*

TPK 295 **Comparison of chemical ionization (CI) reagents for the detection of chemical warfare agents (CWA) with positive-ion CI ion trap MS;** Franco Basile*; Kent J. Voorhees; *Colorado School of Mines, Dept. of Chemistry, Golden, Colorado*

TPK 296 **MS^n Capability of a Miniature Cylindrical Ion Trap Mass Spectrometer;** Leah S. Riter[1]; Robert Noll*[1]; Yanan Peng[1]; Garth E. Patterson[2]; Andy Guymon[1]; R. Graham Cooks[1]; *[1]Chemistry Department, Purdue University, West Lafayette, IN; [2]Griffin Analytical Technologies, Inc., West Lafayette, IN*

TPK 297 **Evaluation of the Potential of Library Search for the Identification of Bacteria from Py-MS Fingerprints;** Dimo Zidarov[1]; Simon Letarte[2]; Martin Ethier[2]; Michel J. Bertrand*[2]; *[1]Dephy Technologies, Montreal, Quebec; [2]University of Montreal, Montreal, Montreal*

TPK 298 **Applications of the JEOL Tunable-Energy Electron Monochromator: Bacterial Spores, BTEX, and Bioweapons;** Robert B. Cody*; James A. Laramee; Gary L. Samuelson; Owen Edward G; *JEOL USA, Inc., Peabody, MA*

TPK 299 **A Mobile Tandem Mass Spectrometer for Real Time Analysis of Explosives Traces;** Richard Sleeman*[1]; John G. Luke[1]; William R. Stott[2]; William R. Davidson[2]; Samantha L. Richards[1]; *[1]Mass Spec Analytical Ltd., Bristol, UK; [2]MDS Sciex, Toronto, Canada*

TPK 300 **Vapour and Particle Sampling in the Detection of Terrorist Explosives;** William R Davidson*; William R Stott; *MDS SCIEX, Concord, Canada*

TPK 301 **MS-Based Explosives Detection Portal for Passenger Screening;** Jack A. Syage*[1]; Karl A. Hanold[1]; Charles Rhykerd[2]; Frank Bouchier[2]; Kevin Linker[2]; *[1]Syagen Technology, Inc, Tustin, CA; [2]Sandia National Laboratories, Albuquerque, NM*

TPK 302 **Detection of bacteria using immunomagnitic separation coupled with bacteriophage amplification prior to MALDI-MS analysis;** Sheila Van Cuyk; Angelo J. Madonna; Kent J. Voorhees*; *Colorado School of Mines, Golden, CO*

TPK 303 **Fast Analysis of Explosives using GC/TOF-MS with Electron Ionisation and Chemical Ionisation;** Steve Davis; David Elks; John H Moncur*; Mark Hardman; Jonathan Hughes; *Thermo Finnigan, Manchester, UK*

TPK 304 **Aerosol MALDI for Real-time Detection of Bioaerosols;** Shelley N. Jackson; Kermit K. Murray*; *Louisiana State University, Baton Rouge, LA*

TPK 305 **Comparison of Atmospheric Pressure Chemical Ionization and Atmospheric Sampling Glow Discharge Ionization Combined with Tandem Mass Spectrometry for Explosives Vapor Detection;** Douglas Goeringer*[1]; Gary Van Berkel[1]; William Stott[2]; Bill Davidson[2]; Richard Sleeman[3]; John Luke[3]; *[1]Oak Ridge National Laboratory, Chemical Sciences Division, Oak Ridge, Tennessee; [2]MDS SCIEX, Concord, Ontario, Canada; [3]Mass Spec Analytical, Ltd., Bristol, England*

TPK 306 **A Fully-Automated Peak Extraction and Baseline Estimation Method for High-Throughput MALDI-TOF-MS-Based Detection of Biological Agents;** Jeffrey S. Lin*[1]; Wayne A. Bryden[1]; Fernando J. Pineda[2]; Cheryl L. Resch[1]; Anshu Saksena[1]; Andrew B. Feldman[1]; *[1]Johns Hopkins University, Applied Physics Laboratory, Laurel, MD; [2]Johns Hopkins Bloomberg School of Public Health, Baltimore, MD*

TPK 307 **Determination of Chemical Warefare Agent Tabun (GA) in Aqueous Samples by Gas Chromatography/MassSpectroscopy;** Thomas F. Rusek*[1]; James C. Peterson[1]; *[1]Battelle, Edgewood, Maryland; [2]Chemical and Biological Forensic Analytical Center, Edgewood, Maryland*

TPK 308 **Liquid Chromatographic (LC) Electrospray Ionization Tandem Mass Spectrometry of Nitrogen Mustard Degradants: Method Development and Structural Characterization of CAD Fragments;** Michael W Wensing*; James C Peterson; *Battelle Memorial Institute, Edgewood, MD*

TPK 309 **Analysis of Metabolites of Eleven Mustard Agents in Urine by Isotope Dilution GC/MS/MS;** Anne E Boyer*; John R Barr; Sharon W Lemire; M Angela Montesano; W Jack Driskell; Maria Ospina; Adrian R Woolfitt; Dana Barr; *Centers for Disease Control and Prevention, Atlanta, Georgia, USA*

TPK 310 **Comparison of Time-of -Flight and Double Focusing Mass Spectrometry for Reaching Tentative Identifications of Unanticipated Compounds Added to Drinking Water by Terrorists;** Andrew H. Grange*[1]; Floyd A. Genicola[2]; G. Wayne Sovocool[1]; *[1]U.S. Environmental Protection Agency, Environmental Chemistry Branch, Las Vegas, NV; [2]N.J. Dept. of Environmental Protection, OCPPC, Trenton, NJ*

TPK 311 **A Novel Method for the HPLC/MS/MS Quantitative Analysis of Pyridostigmine, a Pretreatment Compound for Chemical Warfare Agents, in Guinea Pig and Mouse Plasma;** Shane R Needham*[1]; Binying Ye[1]; J. Richard Smith[2]; William Korte[3]; *[1]Alturas Analytics, Inc, Moscow, ID; [2]US Army Medical Research Institute of Chemical Defense, Aberdeen Proving Ground, MD; [3]Department of Chemistry, Chico, CA*

TPK 312 **Mass Spectrometry: A Technique for Early Warning in Terrorist Agression;** Michel J. Bertrand*[1]; Pascal Martin[2]; Gabriel Sanchez[2]; *[1]University of Montreal, Montreal (Qc), Canada; [2]Dephy Technologies, Montreal (Qc), Canada*

TPK 313 **Characterization of Microorganisms on Glass Slides by MALDI-TOF;** Carlos Afonso*; Catherine Fenselau; *University of Maryland, College Park, MD*

TPK 314 **New and improved strategies for the rapid detection and differential identification of microbial spores using MALDI-TOFMS;** Danielle N. Dickinson*; David H. Powell; James D. Winefordner; *University of Florida, Department of Chemistry, Gainesville, Florida*

TPK 315 **Detection and Decontamination Kinetics of VX and Related Compounds by LC/MS;** William R. Creasy*[1]; David J. McGarvey[2]; Richard J. O'Connor[2]; H. Dupont Durst[2]; *[1]EAI Corporation, Abingdon, MD; [2]R&T Directorate, ECBC, APG, MD*

TUESDAY POSTERS
Bioinformatics

TPL 316 **Clustering of liquid chromatography tandem mass-spectrometry data for large scale peptide analysis;** Ilan Beer[2]; Eilon Barnea[1]; Tamar Ziv[1]; Arie Admon*[1]; *[1]Department of Biology, Technion - Israel Institute of Technology, Haifa, Israel; [2]IBM Research Laboratory, Haifa, Israel*

TPL 317 **Biomedical and Environmental Applications of a Preconcentrator Coupled to a Gas Chromatograph Fourier Transform Ion Cyclotron Resonance Mass Spectrometer:;** Touradj Solouki*; Jan E. Szulejko; *Chemistry Department, University of Maine, Orono, ME*

TPL 318 **Ultrafast MS Analysis of SNP Genotypes and Unknown Components using Correlative Analysis;** Noah P. Christian*; Mudhar Shaheen; Ivo G. Gut; Mark Lathrop; *Centre National de Genotypage, Evry, France*

TPL 319 **Application of probabilistic models to SEQUEST search results;** Rovshan G. Sadygov*; John R. Yates, III; *The Scripps Research Institute, San Diego, CA*

TPL 320 **Comparative Processing of MALDI Data from Direct Tissue Analysis: A Study of Human Brain Tumors;** Sarah A. Schwartz; Robert Weil; Floyd L. Hiebert; Joel Parker; Jason Moore; Richard M. Caprioli*; *Vanderbilt University, Nashville, TN*

TPL 321 **Intensity based statistical scorer for tandem mass spectrometry;** Moshe Havilio*; Yariv Hadad; Zeev Smilansky; *Compugen limited, Tel Aviv, Israel*

TPL 322 **Mass spectrometric imaging in the Amsterdam virtual laboratory;** Ron M.A. Heeren*; Gert B. Eijkel; Stefan Luxembourg; *FOM institute for Atomic and molecular physics, Amsterdam, The Netherlands*

TPL 323 **Applications of Computer Database Searching and Bioinformatics to Characterize Hexophosphotransferases;** Troy D Wood*[2]; Craig P Dufresne[3]; Mary Blackburn[3]; John E Wilson[1]; *[1]University at Buffalo, Buffalo, New York; [2]Thermo Finnigan, West Palm Beach, Florida; [3]Michigan State University, East Lansing, Michigan*

TPL 324 **A computational aid for analyzing crosslinked proteins and protein complexes;** Richard J Jacob*; *University of California, Berkeley, USA*

TPL 325 **Sequence Similarity Searching Tools for High Throughput Identification of Proteins from Organisms with Unsequenced Genomes;** Andrej Shevchenko*[1]; Shamil Sunyaev[2]; Bianca Habermann[1]; Alexander Golod[2]; Adam Liska[1]; *[1]MPI of Molecular Cell Biology and Genetics, Dresden, Germany; [2]European Molecular Biology Laboratory (EMBL), Heidelberg, Germany*

TPL 326 **Automated Interpretation of N-linked Oligosaccharides Tandem Mass Spectra obtained by Matrix-Assisted Laser Desorption Ionization Mass Spectrometry for Structure Determination;** Martin Ethier[1]; Julian A. Saba[1]; Jeremy P. Kunkel[1]; Werner E. Ens[2]; Kenneth G. Standing[2]; Hélène Perreault*[1]; *[1]Department of Chemistry, University of Manitoba, Winnipeg, Canada; [2]Department of Physics, University of Manitoba, Winnipeg, Canada*

TPL 327 **PAULA - A 128 CPU Cluster for Peptide Fragmentation Fingerprint (PFF) Analysis;** Martin Blüggel*[1]; Gerhard Körting[1]; Dieter Kirsch[2]; Jim Shofstahl[3]; Joachim Karger[2]; Helmut E. Meyer[4]; *[1]Protagen AG, Dortmund, Germany; [2]Fujitsu Siemens Computer GmbH, Laatzen, Germany; [3]Thermo Finnigan, San Jose, CA, United States; [4]Proteinstrukturlabor, Bochum, Germany*

TPL 328 **Using automatic de-novo sequencing and homology searching for the identification of proteins from 2D gels analyzed by LC-MS/MS;** Andreas Wattenberg*[1]; Andy West[2]; Neil A. Jones[2]; Andy Organ[2]; Klaus Schneider[2]; *[1]Prot@gen, Dortmund, Germany; [2]GlaxoSmithKline, Harlow, UK*

TPL 329 **SPECTROSAURUS: A novel analysis tool for MS/MS interpretation and de-novo peptide sequencing;** Moshe Havilio*; Yariv Hadad; Zeev Smilansky; *Compugen limited, Tel-aviv, Israel*

TPL 330 **An integrated Database System for Proteome Analyses managing project specific data on samples, gels, spots, MS-data, Protein ID and correlations thereof;** Martin Blueggel*[1]; Gerhard Körting[1]; Jörg Glandorf[2]; Jens Vagts[2]; Ralf Reinhardt[1]; Daniel Chamrad[1]; Herbert Thiele[2]; *[1]Protagen AG, Dortmund, Germany; [2]Bruker Daltonik GmbH, Bremen, Germany*

TPL 331 **The complete amino acid sequence determination of a novel protein by mass spectrometry with the tentative human consensus sequence database;** Kenichi Yoshino*; Kenta Hara; Noriko Oshiro; Sujuti Hidayat; Chiharu Tokunaga; Kazuyoshi Yonezawa; *Kobe University, Biosignal Research Center, KOBE, JAPAN*

TPL 332 **A fully automated hierarchical software strategy for de novo sequencing of whole Q-Tof electrospray LC-MS/MS datasets;** Alan Millar*; James Langridge; Phil Young; Neil Swainston; Keith Richardson; *Micromass UK Ltd, Manchester, UK*

TPL 333 **Automation and Data Integration in High-Throughput Proteomics;** David Fenyo*; Ronald C Beavis; *Genomic Solutions, Ann Arbor, MI*

TPL 334 **Application of a New Algorithm for Automated Database Searching of MS Sequence Data to Identify Proteins;** Subodh Nimkar*[1]; Joseph Loo[2]; *[1]Applied Biosystems, Foster City, CA, USA; [2]Department Of Biological Chemistry University Of California, LA, Los Angeles, CA, USA*

TPL 335 **Application of Relational Database Tools for the Analysis of Large Proteomic Data Sets from Tandem Mass Spectrometry;** Ioannis K. Moutsatsos*[1]; Yongchang Qiu[2]; Jack Wang[2]; Rodney Hewick[2]; Joseph Wooters[2]; Steve Howes[3]; Charles Richard[3]; Gary Van Domselaar[1]; Patrick Cody[1]; *[1]Proteome Informatics, Genomics Department, Wyeth Research, Cambridge, MA; [2]Protein Chemistry and Proteomics, Genomics Department, Wyeth Research, Cambridge, MA; [3]Genomics Department, Wyeth Research, Cambridge, MA*

TUESDAY POSTERS
MALDI/MS Imaging

TPM 336 **Mapping of Basalt Mineralogy Using Imaging Internal Laser Desorption Fourier Transform Mass Spectrometry (I^2LD-FTMS);** Mary E. Kauffman[1]; Timothy R. McJunkin[2]; Paul L. Tremblay[2]; Jill R. Scott*[2]; *[1]Montana State University, Bozeman, MT; [2]Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, ID*

TPM 337 **Orthogonal Time of Flight Cluster SIMS of biological samples;** Agnes L Tempez*[1]; Michael Ugarov[1]; Abdelhakim Bensaoula[1]; Katrin Fuhrer[1]; Marc Gonin[1]; Valeri V Raznikov[1]; Albert Schultz[1]; Amina S Woods[2]; Yvon Le Beyec[3]; *[1]Ionwerks, Houston, TX; [2]NIDA IRP, Baltimore, MD; [3]Institut de physique nucleaire, CNRS, Orsay, France*

TPM 338 **Towards chemical imaging of phosphatidylinositol 4-monophosphate (PIP) and phosphatidylinositol 4,5-biphosphate (PIP_2) in biological tissue;** Stefan L. Luxembourg*; Liam A. McDonnell; Marc C. Duursma; Ron M.A. Heeren; *FOM Institute for Atomic and Molecular Physics, Amsterdam, The Netherlands*

TPM 339 **MALDI MS Imaging and Protein Expression Profiling: Measurement of Amyloid Beta Peptides in Mouse Brain Tissue;** Dieter Staab; Luca Signor; Markus Stoeckli*; *Novartis Pharma AG, Basel, Switzerland*

TPM 340 **Direct Analysis of Laser Capture Microdissected Cells by MALDI Mass Spectrometry;** Baogang J. Xu; Melinda E. Sanders; Pierre Chaurand; Roy A. Jensen; Robert Whitehead; Richard M. Caprioli*; *Vanderbilt University, Nashville, TN*

TPM 341 **Uranium Surface Speciation Using SIMS and LDMS;** Garold L. Gresham*; Jill R. Scott; Gary S. Groenewold; Paul L. Tremblay; Bruce J. Mincher; *INEEL, Idaho Falls, ID*

TPM 342 **Isotope Ratio Imaging with Secondary Ion Mass Spectroscopy;** Peter J. Todd*; Hank S. McKown; John M. McMahon; T. Gregory Schaaff; Mostafa Fayek; *Oak Ridge National Laboratory, Oak Ridge, Tennessee*

TPM 343 **Imaging of Drugs in Tissues by MALDI Mass Spectrometry;** Michelle L. Reyzer[1]; Walter A. Korfmacher[2]; Kwokei Ng[2]; Yunsheng Hsieh[2]; Richard M. Caprioli*[1]; *[1]Mass Spectrometry Research Center, Vanderbilt University, Nashville, TN; [2]Drug Metabolism and Pharmacokinetics Department, Schering-Plough, Kenilworth, NJ*

TPM 344 **An Evaluation of Coincidental Secondary Ion Emission from keV Mono- and Polyatomic Projectile Impacts;** Richard D. Rickman; George J. Hager; Stanislav V. Verkhoturov; Emile A. Schweikert*; *Center for Chemical Characterization & Analysis, Texas A&M University, College Station, TX*

TPM 345 **Imaging Neuropeptide Distributions in the *Aplysia* Central Nervous System with MALDI MS;** Rebebcca A Kruse*; Elena V Romanova; Stanislav S Rubakhin; Jason S Page; Jonathan V Sweedler; *University of Illinois, Urbana, IL*

TUESDAY POSTERS
Ion Structures/Energetics

TPN 346 **Gas-Phase Na^+ Binding to Dipeptides with Basic Side Chains;** In-Su Hahn*; Blas A. Cerda; Chrys Wesdemiotis; *The University of Akron, Department of Chemistry, Akron, Ohio*

TPN 347 **Collision Cross Sections of Gas Phase DNA Ions;** Annie Moradian*[1]; Mark Scalf[2]; Micheal S. Westphall[3]; Lioyd M. Smith[3]; D.J. Douglas[1]; *[1]University of British Columbia, Vancouver, B.C; [2]Zyomyx Inc., Hayward, CA; [3]University of Wisconsin at Madison, Madison, WI*

TPN 348 **Sodium Ion Affinities of Amino Acids;** Michelle M. Kish*; Chrys Wesdemiotis; *The University of Akron, Akron, OH*

TPN 349 **Ion-to-Neutral Ratios: A Unique Measure of Internal Energy Content of MALDI Ions;** Zhaoyang Liu[1]; David H. Russell[2]; Lloyd W. Sumner*[1]; *[1]The Samuel Roberts Noble Foundation, Ardmore, OK; [2]Texas A&M University, Dept. of Chemistry, College Station, TX*

TPN 350 **Effect of Intra-Molecular Interactions on the Gas-Phase Conformation of Bradykinin as Probed by Ion-Mobility Mass Spectrometry;** Holly A. Sawyer; Joseph T. Marini; Brandon T. Ruotolo; David H. Russell*; *Texas A&M University, College Station, Texas*

TPN 351 **Thermochemistry of SF_5^- and SF_6^-;** Catherine E. Check; Kim C. Lobring; Thomas M. Gilbert; Lee S. Sunderlin*; *Northern Illinois University, DeKalb, IL*

TPN 352 **Proton Affinity of Arginine Analogs Using the Extended Kinetic Method;** Erica J. Andriole; Olivia E. Schroeder; John C. Poutsma*; *The College of William and Mary in Virgina, Williamsburg, Virginia*

TPN 353 **ECD Prototype Adducts to the Amide Bond: A Neutralization-Reionization Mass Spectrometry and Computational Study of the 1-hydroxy-1-(methylamino)ethyl Radical;** Erik A. Syrstad*; Frantisek Turecek; *University of Washington, Seattle, WA*

TPN 354 **Periodic Trends in Bond Strengths of Heteroatomic Trihalide Anions;** Brian J Wright; Nicole E Banweg; Catherine E Check; Kim C Lobring; John M Bailey; Lee S Sunderlin*; *Northern Illinois University, Dekalb, IL*

TPN 355 **The Gas-Phase Acidities of 2-Ketones: Are 2-Alkanone Anions Stabilized by Intramolecular Solavation;** Jami L. Burkell; Travis D. Fridgen*; Terry B. McMahon; *Department of Chemistry, University of Waterloo, Waterloo, ON, Canada*

TPN 356 **Fragmentation of the b_2 and the a_2 Ions in Protonated GGG, GAG, and AGG: A Mechanistic Evaluation Using Threshold Collision-Induced Dissociation and Density Functional Theory;** Houssain El Aribi*[1]; Christopher F. Rodriquez[1]; Ya-Ping Tu[2]; Yun Ling[1]; Alan C. Hopkinson[1]; Michael K. W. Siu[1]; *[1]York University, Toronto, Canada; [2]Apotex, Toronto, Canada*

TPN 357 **Investigation of the solvent and counter-ion stabilization of multiply charged anions in the gas phase;** Xue-Bin Wang*[1]; Xin Yang[1]; Lai-Sheng Wang[1]; *[1]Department of Physcis, Washington State University, Richland, WA; [2]Pacific Northwest National Laboratory, Richland, WA*

TPN 358 **Proton Affinity of Multifunctional Bases Using the Extended Kinetic Method;** Olivia E Schroeder; Kate E Colyer; John C. Poutsma*; *The College of William and Mary in Virginia, Williamsburg, VA*

TPN 359 **Effects of Electronegativity on Bond Strengths in Hypervalent Ions;** Lee S Sunderlin*; Kim C Lobring; Catherine E Check; Pamela R Keating; Terry Heil; *Northern Illinois University, Dekalb, IL*

TPN 360 **Relative Binding Energies of Hydrogen-Bonded Complexes;** Jennifer S. Brodbelt*; Wendi David; *University of Texas at Austin, Austin, Texas*

TPN 361 **Formation of Serine Clusters;** Katianna A. Pihakari*; Ernest R. Davidson; David E. Clemmer; *Dept. of Chemistry, Indiana University, Bloomington, Bloomington, IN 47405*

TPN 362 **Use of Chemical Mass Shifts as a Diagnostic Method for the Presence of Nitroaromatic Compounds;** Yanan Peng*[1]; Hongyan Li[1]; Wolfgang R. Plass[2]; R. Graham Cooks[1]; *[1]Purdue University, West Lafayette, IN 47906; [2]Justus-Liebig Universitaet Giessen, Giessen, Germany*

TPN 363 **Bond Dissociation Energy of Protonated 3-Bromopyridine;** John W. Torchia[1]; Michael Watkins[1]; J. Larry Campbell[1]; Katrina E. Nizzi[1]; Shane Tichy[4]; Lee S. Sunderlin[3]; John C. Poutsma[2]; Robert R. Squires[1]; Hilkka I. Kenttämaa*[1]; *[1]Purdue University, West Lafayette, Indiana; [2]College of William and Mary, Williamsburg, Virginia; [3]Northern Illinois University, DeKalb, Illinois; [4]Texas A & M, College Station, Texas*

TPN 364 **Structure, Energetics, and Reactivity of Ternary Complexes of Amino Acids with Cu(II) and Bipyridine by Density Functional Theory. A Combination of Radical-Induced and Spin Remote Fragmentations;** Jennifer Seymour*; Frantisek Turecek; *University of Washington, Seattle, WA*

TPN 365 **Interaction of electrons and protons with the RNA-Base uracil;** Gernot Hanel[1]; Bettina Gstir[1]; Stephan Denifl[1]; Paul Scheier[1]; Jumras Limtrakul[5]; Michael Probst[1]; Bruno Coupier[2]; Bernadette Farizon[2]; Michel Farizon[2]; Hans Deutsch[3]; Kurt Becker[3]; Tilmann Maerk*[1]; *[1]Institut für Ionenphysik, Universitaet Innsbruck, Innsbruck, Austria; [2]Institut de Physique Nuclaire de Lyon,Universite Claude Bernard Lyon 1, Lyon, France; [3]Institut für Physik, Universitaet Greifswald, Greifswald, Germany; [4]Department of Physics and Engineering Physics, New York, New York; [5]Department of Chemistry, Kasetsart University Bangkok, Bangkok, Thailand*

TPN 366 **Collisionally-Induced Dissociation of Substituted Pyrimidine Nucleoside Antiviral Agents: Mechanisms of Ion Formation Using Gas Phase Hydrogen/Deuterium Exchange and Electrospray Ionization Tandem Mass Spectrometry;** Amin M Kamel*[1]; Burnaby Munson[2]; *[1]Pfizer Global Research and Development, Groton Laboratories, Grotn, CT; [2]University of Delaware, Newark, Delaware*

TPN 367 **Internal Energy of Nylon-6 ions at t=0: Comparison of ion sources for FTICR-MS;** Todd H. Mize[1]; Chris G. de Koster[2]; Sander Coster[2]; Ron M. A. Heeren[2]; I. Jonathan Amster*[1]; *[1]University of Georgia, Athens, GA; [2]FOM Institute-AMOLF, Amsterdam, Netherlands*

TPN 368 **H/D Exchange of Gas Phase Protein Ions in a Linear Ion Trap;** Dunmin Mao*; Chuanfan Ding; D.J. Douglas; *Department of Chemistry, University of British Columbia, Vancouver, BC, Canada*

TPN 369 **Electrolytic dissociation monitored by UV spectroscopy compared with ESI in solution and low laser fluence LDI of solids: soft ionization of complex inorganic anions;** Victor L. Talroze*; A. L. Burlingame; Michael A. Baldwin; *University of California, San Francisco, CA*

TPN 370 **An FTICR and Computational Study of the Reaction of SiF_4H^+ With SiF_4;** Travis D. Fridgen*; Terry B. McMahon; *Department of Chemistry, University of Waterloo, Waterloo, Ontario, Canada*

TPN 371 **Binding of Metalloporphyrins to Histidine-Containing Peptides and Model Compounds: CID and Ion-Molecule Reactions;** Emily Jellen; Angelina Chappell; Victor Ryzhov*; *Northern Illinois University, DeKalb, IL*

TPN 372 **Isotopic Oxygen Exchange of Si and Al Oxyanions;** Brittany D.M. Hodges*; Anita K. Gianotto; Gary S. Groenewold; Michael T. Benson; *Idaho National Engineering and Environmental Laboratory (INEEL), Idaho Falls, Idaho*

TPN 373 **Reactions of Ta^+, W^+, and Pt^+ with H_2, D_2, and HD: Effect of Lanthanide Contraction and Spin-Orbit Interactions on Reactivity and Thermochemistry;** Xiao-Guang Zhang; Chad Rue; Sae-Young Shin; Peter B. Armentrout*; *Department of Chemistry, University of Utah, Salt Lake City, Utah*

TPN 374 **On the Competitive Channels of HF Loss from the Fragment Ions from Fluorinated Secondary Alcohols in Metastable Dissociation by the 2nd and 4th Field Free Regions MIKES Using BEBE Geometry Four Sector Tandem Mass Spectrometer;** Hiroshi Yamaoka*[1]; Hideyuki Konishi[2]; Roel H. Fokkens[3]; Han J. W. Peeters[4]; Nico M. M. Nibbering[5]; *[1]Faculty of Science, Osaka Women's University, Sakai, Osaka, Japan; [2]Chemistry, Aichi Kyoiku University, Kariya, Aichi, Japan; [3]MESA+ Research Institute, University of Twente, Enschede, The Netherlands; [4]Mass Spectrometry, University of Amsterdam, Amsterdam, The Netherlands; [5]Vrije University, Amsterdam, The Netherlands*

TPN 375 **High Resolution Chemical Mass Shifts in the Quadrupole Ion Trap;** Hongyan Li*[1]; Wolfgang R. Plass[2]; R. Graham Cooks[1]; *[1]Purdue University, West Lafayette, IN 47906, USA; [2]II.Physikalisches Institut, Justus-Liebig-Universitaet Giessen, Giessen, Germany*

TPN 376 **ESI-MS Detection of Face-to-Face Dimer Complexes of Cyclodextrins Bearing an Azobenezene Group;** Ryuichi Arakawa*[1]; Takahiro Yamaguchi[1]; Atsushi Takahashi[1]; Takahiro Kaneda[2]; Yoshiteru Sakata[2];

[1]Kansai University, Osaka, Japan; [2]Osaka University, Osaka, Japan

TPN 377 **Determination of Potassium Cation and Proton Affinities of N-Methylated Aliphatic Amino Acids : A Combined Mass Spectrometric and Theoretical Study;** Catherine C.L. Wong*[1]; Carrie H.S. Wong[2]; Ida N.L. Ma[3]; C.W. Tsang[2]; [1]The University of Hong Kong, Hong Kong, PRC, China; [2]Hong Kong Polytechnic University, Hong Kong, PRC, China; [3]Institute of High Performance Computing, Singapore, Singapore

TPN 378 **Fragmentation of Protonated and Sodiated Monomers and Dimers of MALDI Matrices and Their Conjugate Bases;** Kathleen M Wollyung; Chrys Wesdemiotis*; The University of Akron, Akron, Ohio

TPN 379 **An estimation sodium cation affinity scale for amino acids and nucleobases based upon ab initio calculations and the kinetic method;** Sophie Rochut[1]; Claude Pepe*[1]; Jean-Paul Paumard[1]; Françoise Fournier[2]; Jean-Claude Tabet[2]; [1]Université Pierre et Marie Curie LADIR (Spectrochimie moléculaire), Paris, France; [2]Université Pierre et Marie Curie LCSOB, Paris, France

TPN 380 **Simultaneous Detection and Differentiation of Isomers with MS/MS on an FTMS Instrument;** Kevin C Crellin*; Aaron G Fountain; IonSpec Corporation, Lake Forest, CA

TPN 381 **Structure and Electron Affinity of an Iron (III) Porphyrin from Density Functional Theory;** Douglas P. Ridge*; University of Delaware, Newark, DE

TPN 382 **Determination of the proton affinity of a series of modified prolines by ESI/ITMS;** Sakina Mezzache[1]; Fran?se Fournier[1]; Claude Pepe[2]; Philipe Karoyan[1]; Jean-Claude Tabet*[1]; [1]Laboratoire de Chime Structurale Organique et Biologique, Paris, France; [2]Laboratoire de Dynamique,Interaction et R?tivit?, Paris, France

TPN 383 **Dissociation of trisaccharide clusters in the gas phase. Determination of the carbohydrate-carbohydrate interactions;** Elena N. Kitova; John S. Klassen*; University of Alberta, Edmonton, Canada

TUESDAY POSTERS
Ion Mobility

TPO 384 **Mobility separation of MALDI and ESI ions in a segmented quadrupole ion guide coupled to an orthogonal TOF MS;** Viatcheslav I. Kozlovski*[3]; Alexandre V. Loboda[2]; Victor Spicer[1]; James McNabb[1]; Werner Ens[1]; Kenneth G. Standing[1]; [1]MDS Sciex, Toronto, Canada; [2]Institute for Energy Problems of Chemical Physics (branch) RAS, Chernogolovka, Russia; [3]Univercity of Manitoba, Winnipeg, Canada

TPO 385 **Nano-electrospray ion mobility spectrometry studies of isomeric compounds of pharmaceutical interest;** Claire J Bramwell[1]; Michelle L Colgrave[1]; Colin S Creaser*[1]; Richard Dennis[2]; [1]The Nottingham Trent University, Nottingham, NG11 8NS UK; [2]GlaxoSmithkline, Stevenage, Herts. SG1 2NY UK

TPO 386 **Nanoelectrospray ion mobility spectrometry and mass spectrometry studies of ligand-receptor complexes of amino acids and peptides with polyethers;** Michelle L Colgrave; Claire J Bramwell; Colin S Creaser*; Nottingham Trent University, Nottingham, UK

TPO 387 **Rapid Screening of Aqueous Chemical Warfare Agent Degradation Products: Ambient Pressure Ion Mobility Mass Spectrometry (IMMS);** Wes E Steiner; Brian H Clowers; Laura M Matz; William F Siems; Herbert H Hill*; Washington State University, Pullman, WA

TPO 388 **Investigation of the ion mobility in a segmented RFQ interfaced to the High-resolution Ortho-TOF MS acquiring mass spectra in the real time mode with time resolution up to 0.5 μS;** Viatcheslav I. Kozlovski*; Ilia V. Soulimenkov; Alexandre R. Pikhtelev; Ella V. Chardakova; Valeri V. Raznikov; Alexandre F. Dodonov; Institute for Energy Problems of Chemical Physics (branch), Chernogolovka, Russia

TPO 389 **The Role of Clustering on Ion Behavior in FAIMS;** Leonard C. Rorrer, III*[1]; Roger Guevremont[2]; David Barnett[2]; Richard A. Yost[1]; [1]University of Florida, Gainesville, Florida; [2]Ionalytics, Ottawa, Canada

TPO 390 **Atmospheric pressure MALDI-Mobility-Time-of-Flight analysis;** Katrin Fuhrer*[1]; Marc Gonin[1]; Albert J. Schultz[1]; Thomas Egan[1]; Michael Ugarov[1]; Kent J. Gillig[2]; [1]Ionwerks Inc, Houston, TX; [2]Texas A&M University, College Station, TX

TPO 391 **Development of LC-Ion Mobility-Tandem Mass Spectrometry for High-Throughput Analysis of Complex Peptide Mixtures;** Young Jin Lee; Cherokee S. Hoaglund-Hyzer; Catherine A. Srebalus Barnes; Amy E. Hilderbrand; Katianna Pihakari; David E. Clemmer*; Indiana University, Bloomington, IN

TPO 392 **Ion Mobility Measurements in Neon in a Modified Triple-Quadrupole Mass Spectrometer with a Segmented Q2;** Yuzhu Guo*[1]; Christopher F. Rodriquez[1]; Jiaxi Wang[1]; Yun Ling[2]; Alan C. Hopkinson[1]; K. W. Michael Siu[1]; [1]Department of Chemistry and CRMS, York University, Toronto, Canada; [2]SCIEX, Toronto, Canada

TPO 393 **Separation of Enatiomeric Species Using Ion Mobility Time-of-Flight Mass Spectrometry;** Brian H Clowers*; Ching Wu; Laura M. Matz; Wes E. Steiner; William F. Siems; Herbert H. Hill; Washington State University, Pullman, WA

TUESDAY POSTERS
Instrumentation: Detectors

TPP 394 **Development of GC-MS with an array detector system for Endocrine Disruptor(ED) measurements;** Hiroki Sakae[1]; Michisato Toyoda*[2]; Morio Ishihara[2]; Itsuo Katakuse[2]; [1]Core Research for Evolutional Science and Technology, Osaka, Japan; [2]Osaka University, Osaka, Japan

TPP 395 **Rapidly Switchable Detector Assembly of a High-Resolution MCP and a High-Mass Conversion Dynode/SEM Detector in a MALDI-TOF Instrument;** Klaus Dreisewerd*; Martin Schuerenberg; Franz Hillenkamp; Institute of Medical Physics and Biophysics, University of Muenster, Muenster, Germany

TPP 396 **The Development of a Low Dilution Sheath Liquid CE-ESI-MS Interface for Micellar Electrokinetic Chromatography and Large Volume Sample Stacking;** Yet-Ran Chen; Mei-Chung Tseng; Yan-Zin Chang; Guor-Rong Her*; Department of Chemistry, National Taiwan University, Taipei, Taiwan, R.O.C.

TPP 397 **A COMPARATIVE STUDY OF THE SCIEX API 3+, THE API 365 AND THE IONICS EP 10+;** Roger Demers; Roberta Westermann*; Maxxam Analytics Incorporated, Mississauga, Canada

TPP 398 **The Analysis of Trace Components in Complex Mixtures Using Exact Mass Orthogonal Acceleration Time-of –Flight (oa-Tof) GC-MS With Enhanced Dynamic Range;** Martin R. Green*[1]; Anthony Newton[1]; Steven Platt[1]; Richard Chapman[1]; Michael Jackson[1]; Neil Owen[2]; [1]Micromass UK Ltd, Manchester, United Kingdom; [2]Quest International UK, Ashford, United Kingdom

TPP 399 **Development of a Micro-Faraday, Focal-Plane Array Detector for Mass Spectrometry;** Andrew K Knight[1]; Roger P Sperline[1]; James H Barnes[2]; Charles J Barinaga[3]; Eric Young[1]; M Bonner Denton[1]; Gary M Hieftje[2]; David W Koppenaal[*3]; *[1]University of Arizona, Tucson, AZ; [2]Indiana University, Bloomington, IN; [3]Pacific Northwest National Laboratory, Richland, WA*

TPP 400 **Relationship between Mass Accuracy and Ion Abundance on a New ADC-Based API-oa-TOF Mass Spectrometer;** Jun Tamura[*1]; Yutaka Takahashi[1]; Tetsuichiro Morita[1]; Takayuki Suzuki[1]; Susumu Fujimaki[1]; Robert B. Cody, Jr. [2]; Fumio Kunihiro[1]; *[1]JEOL Ltd., Tokyo, Japan; [2]JEOL USA, Inc., Peabody, MA*

TUESDAY POSTERS
Teaching MS

TPQ 401 **Mass What? The Importance of Communicating the Concept of Mass Spectrometry to the Professionals, Media and the Consumer;** Donald H. Chace[*1]; O. David Sparkman[2]; *[1]Neo Gen Screening, Pittsburgh, PA; [2]University of the Pacific, Stockton, CA*

TPQ 402 **Remote MALDI-MS Experiments from the Classroom;** Ioan Marginean[1]; Akos Vertes[*1]; Frederick J. Cox[2]; Murray V. Johnston[2]; *[1]The George Washington University, Washington, DC; [2]University of Delaware, Newark, DE*

TPQ 403 **Practical Quadrupole Theory: Understanding Peak Shapes;** Randall E Pedder[*]; *ABB Inc. - Extrel, Pittsburgh, PA*

TUESDAY POSTERS
Particle Analysis

TPR 404 **Mass Spectrometry of Separated Gold and Silver Nanocrystal Compounds;** T. Gregory Schaaff[*]; Phillip F. Britt; *Oak Ridge National Laboratory, Oak Ridge, TN*

TPR 405 **Particle Analysis in a Bipolar TOF Laser Mass Spectrometer as a Function of the Laser Wavelength;** Achim Trimborn; Klaus-Peter Hinz; Bernhard Spengler[*]; *Institute of Inorganic and Analytical Cemistry, University of Giessen, Giessen, Germany*

TPR 406 **Analysis of soot samples from an incineration plant with FT LMMS and ATOFMS. Observation of adsorbed polycyclic aromatic hydrocarbons;** Thomas Ferge[1]; Rune Karlsson[2]; Luc Van Vaeck[3]; Fred Adams[3]; Ralf Zimmermann[*1]; *[1]Institut für Ökologische Chemie, GSF-Forschungszentrum, Munich, Germany; [2]TSI Incorporated, St. Paul, Minnesota; [3]Department of Chemistry, University of Antwerp (UIA), Wilrijk, Belgium*

WEDNESDAY POSTERS
Proteomics – New and Improved

WPA 001 **Differential Display of MBP Class II MHC Peptides by FT-ICR MS;** Jennifer N Sutton[*1]; Audrey Seamons[2]; Dina Bai[1]; Craig Beeson[3]; Joan Goverman[2]; Jeffrey Shabanowitz[1]; Donald F. Hunt[4]; *[1]University of Virginia, Department of Chemistry, Charlottesville, VA; [2]University of Washington, Depart. of Molecular Biotech & Immunology, Seattle, WA; [3]University of Washington, Department of Chemistry, Seattle, WA; [4]University of Virginia, Depart. of Chemistry & Pathology, Charlottesville, VA*

WPA 002 **Whole Cell Bacterial Protein Profiles Obtained via LC/MS and Automated Data Analysis;** Tracie L. Williams[*1]; Peter Leopold[2]; Steven M. Musser[1]; *[1]United States Food and Drug Administration, College Park, Maryland; [2]BioAnalyte Inc., Portland, Maine*

WPA 003 **The Application of Chromatofocusing Multi-dimensional Liquid Phase Separations in the Study of Drug Treated Colon Cancer Cells;** Fang Yan[*1]; David M Lubman[1]; Alexander Nakeff[2]; Balanehru Subramanian[2]; Timothy J Barder[3]; *[1]The University of Michigan, Ann Arbor, MI; [2]Henry Ford Hospital, Detroit, MI; [3]Eprogen LLC., Darien, IL*

WPA 004 **Proteomics via Multidimensional Separations: Which Dimensions to Use?;** David Arnott[*]; Adrianne Kishiyama; Iman Mohtashemi; Wendy Sandoval; William J. Henzel; John T. Stults; *Genentech, Inc., South San Francisco, CA*

WPA 005 **Microorganism Identification Using Amino Acid Sequence Tags Generated *in situ*;** Zhong-ping Yao[*]; Catherine Fenselau; *University of Maryland, College Park, Maryland*

WPA 006 **Protein identification and post-translational modification analysis of complex protein mixtures via 2D LC ESI/MS;** Steven A. Cohen[*]; Scott J. Berger; Hongji Liu; Asish Chakraborty; *Waters Corporation, Milford, MA*

WPA 007 **Surface Enhanced Neat Desorption (SEND): A New Mass Spectrometry Platform for Protein Identification;** Taka Kitagawa[*]; Shanhua Lin; Scot R. Weinberger; *Ciphergen Biosystems, Inc., Fremont, CA*

WPA 008 **Mass spectrometry analysis of intact proteins recovered from silver stained gels;** Victor J. Nesatyy[*1]; Alan Doucette[2]; *[1]Institute for Marine Biosciences, Halifax, Canada; [2]University of Alberta, Edmonton, Canada*

WPA 009 **Affinity-Tagged Phosphorylation Assay by MALDI-TOF/MS;** Tomoya Kinumi[*1]; Hiroyuki Matsumoto[2]; *[1]Natl. Inst of Advanced Industrial Science and Technology (AIST), Osaka, Japan; [2]The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma*

WPA 010 **Membrane Proteome of Yeast: Technologies Developed for Membrane Protein Identification using Peptide Mass Mapping Constrained with Stable Isotope-Tags;** Qin Hua Ru; Li Yang; Srinivas Iyer; E. Morton Bradbury; Jose A. Olivares; Xian Chen[*]; *Los Alamos National Laboratory, Los Alamos, NM*

WPA 011 **Identification of Phosphorylation Sites using PSD MALDI-ToF MS;** Rama Bhikhabhai[*1]; Ulf Hellman[2]; Maria Liminga[1]; *[1]Amersham Biosciences, Uppsala, Sweden; [2]Ludwig Institute for Cancer Research, Uppsala, Sweden*

WPA 012 **On-Probe Affinity Capture of Phosphopeptides Using Copper Impregnated MALDI Probes;** Jim Zhang; Amanda George; Richard B Timmons; Gary R Kinsel[*]; *University of Texas at Arlington, Arlington, TX*

WPA 013 **Intelligent Decision Making of Proteomics Mass Spectral Data with a Novel Sotware Package (PEARLS);** Stanley A. Hefta[*]; Mark Friedrichs; Greg Opiteck; Carlos Rios; Ashok R. Dongre; *Pharmaceutical Research Institute of Bristol-Myers Squibb Co., Princeton, NJ*

WPA 014 **A novel mass spectrometry method for the analysis of protein tyrosine phosphatase regulation by oxidation;** Rhonda D. Husain[*]; JongKyong Kim; KyoungMun Lee; Douglas A. Gage; Walter J. Esselman; *Michigan State University, East Lansing, MI*

WPA 015 ***In situ* orthogonal MALDI MS and MS/MS decoding the language of life;** Peter D. Verhaert[*1]; Stefan P. Clerens[2]; Lutgarde H. Arckens[2]; Isabelle De Bock[2]; Marcel P. de Vries[1]; Sandra J. van der Locht[1]; Ebo S.